

**AP - 111**

**SWMUs No. 1 (Aeration  
Basin) & No. 14 (Old API  
Separator)**

**Investigation Report (2)**

**August 2015**

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | LCS-4229   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4229            |             | RunNo: 6153                               |          |              |      |          |      |
| Prep Date:                 | 10/10/2012 |     | Analysis Date: 10/10/2012 |             | SeqNo: 177267                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 51.1       |     | 50.00                     |             | 102                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 51.1       |     | 50.00                     |             | 102                                       | 70       | 130          |      |          |      |

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4251    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4251            |             | RunNo: 6184                               |          |              |      |          |      |
| Prep Date:                     | 10/11/2012 |         | Analysis Date: 10/11/2012 |             | SeqNo: 178168                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

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|                             |            |         |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4251    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4251            |             |      | RunNo: 6184                               |           |              |          |      |
| Prep Date:                  | 10/11/2012 |         | Analysis Date: 10/11/2012 |             |      | SeqNo: 178168                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| 1,4-Dichlorobenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dichlorodifluoromethane     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethane          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloropropene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |      |                                           |           |              |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45.4       |         | 50.00                     |             | 90.7 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 44.5       |         | 50.00                     |             | 89.0 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 45.4       |         | 50.00                     |             | 90.9 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 43.9       |         | 50.00                     |             | 87.8 | 70                                        | 130       |              |          |      |

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|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4280    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4280            |             | RunNo: 6223                               |          |              |      |          |      |
| Prep Date:                     | 10/12/2012 |         | Analysis Date: 10/12/2012 |             | SeqNo: 179318                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

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\* Value exceeds Maximum Contaminant Level.  
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|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4280    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4280            |             | RunNo: 6223                               |          |              |      |          |      |
| Prep Date:                  | 10/12/2012 |         | Analysis Date: 10/12/2012 |             | SeqNo: 179318                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45.9       |         | 50.00                     |             | 91.9                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 46.6       |         | 50.00                     |             | 93.3                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 49.4       |         | 50.00                     |             | 98.8                                      | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 46.4       |         | 50.00                     |             | 92.9                                      | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4251   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4251            |             | RunNo: 6184                               |          |              |      |          |      |
| Prep Date:                  | 10/11/2012 |      | Analysis Date: 10/11/2012 |             | SeqNo: 180403                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 9.63       | 1.00 | 10.00                     | 0           | 96.3                                      | 60       | 140          |      |          |      |
| Toluene                     | 9.93       | 1.00 | 10.00                     | 0           | 99.3                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 10.3       | 1.00 | 10.00                     | 0           | 103                                       | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 11.1       | 1.00 | 10.00                     | 0           | 111                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 8.17       | 1.00 | 10.00                     | 0           | 81.7                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45.2       |      | 50.00                     |             | 90.4                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 45.7       |      | 50.00                     |             | 91.4                                      | 70       | 130          |      |          |      |

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E Value above quantitation range  
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|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                  | lcs-4251   |     | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4251            |             |      | RunNo: 6184                               |           |              |          |      |
| Prep Date:                 | 10/11/2012 |     | Analysis Date: 10/11/2012 |             |      | SeqNo: 180403                             |           | Units: mg/Kg |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 46.8       |     | 50.00                     |             | 93.5 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8           | 49.1       |     | 50.00                     |             | 98.2 | 70                                        | 130       |              |          |      |

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | lcs-4280   |      | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4280            |             |      | RunNo: 6223                               |           |              |          |      |
| Prep Date:                  | 10/12/2012 |      | Analysis Date: 10/12/2012 |             |      | SeqNo: 180404                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                     | 12.3       | 1.00 | 12.50                     | 0           | 98.3 | 60                                        | 140       |              |          |      |
| Toluene                     | 11.6       | 1.00 | 12.50                     | 0           | 93.2 | 60                                        | 140       |              |          |      |
| Chlorobenzene               | 12.4       | 1.00 | 12.50                     | 0           | 99.5 | 60                                        | 140       |              |          |      |
| 1,1-Dichloroethene          | 13.9       | 1.00 | 12.50                     | 0           | 111  | 60                                        | 140       |              |          |      |
| Trichloroethene (TCE)       | 10.5       | 1.00 | 12.50                     | 0           | 84.3 | 60                                        | 140       |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.0       |      | 50.00                     |             | 92.0 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 46.6       |      | 50.00                     |             | 93.2 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 46.9       |      | 50.00                     |             | 93.9 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 42.8       |      | 50.00                     |             | 85.7 | 70                                        | 130       |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |                |            |             |                                 |          |           |      |          |      |
|-----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | mb-4233    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                  | PBS        | Batch ID:      | 4233       | RunNo:      | 6186                            |          |           |      |          |      |
| Prep Date:                  | 10/10/2012 | Analysis Date: | 10/12/2012 | SeqNo:      | 178244                          | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Acenaphthylene              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Aniline                     | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Anthracene                  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Azobenzene                  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benz(a)anthracene           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(a)pyrene              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzoic acid                | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Benzyl alcohol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Butyl benzyl phthalate      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Carbazole                   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Chloroaniline             | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2-Chloronaphthalene         | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| 2-Chlorophenol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Chrysene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Di-n-butyl phthalate        | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Di-n-octyl phthalate        | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dibenzofuran                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| Diethyl phthalate           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dimethyl phthalate          | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30           |            |             |                                 |          |           |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                |                   |      |           |                                        |      |                     |      |
|----------------------------|-------------------|------|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID                  | <b>mb-4233</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID:      | <b>4233</b>       |      | RunNo:    | <b>6186</b>                            |      |                     |      |
| Prep Date:                 | <b>10/10/2012</b> |      | Analysis Date: | <b>10/12/2012</b> |      | SeqNo:    | <b>178244</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte                    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |
| Fluoranthene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Fluorene                   | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobenzene          | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobutadiene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachloroethane           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Isophorone                 | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylphenol             | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 3+4-Methylphenol           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Naphthalene                | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 3-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitroaniline             | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Nitrobenzene               | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitrophenol              | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitrophenol              | ND                | 0.25 |                |                   |      |           |                                        |      |                     |      |
| Pentachlorophenol          | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Phenanthrene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Phenol                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyrene                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyridine                   | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Surr: 2,4,6-Tribromophenol | 2.8               |      | 3.330          |                   | 84.7 | 21.3      | 145                                    |      |                     |      |
| Surr: 2-Fluorobiphenyl     | 1.3               |      | 1.670          |                   | 76.8 | 20        | 131                                    |      |                     |      |
| Surr: 2-Fluorophenol       | 2.6               |      | 3.330          |                   | 77.5 | 11.9      | 130                                    |      |                     |      |
| Surr: 4-Terphenyl-d14      | 1.2               |      | 1.670          |                   | 71.4 | 25.1      | 149                                    |      |                     |      |
| Surr: Nitrobenzene-d5      | 1.4               |      | 1.670          |                   | 84.7 | 25.6      | 137                                    |      |                     |      |
| Surr: Phenol-d5            | 3.1               |      | 3.330          |                   | 92.6 | 20.3      | 132                                    |      |                     |      |

|            |                   |     |                |                   |      |           |                                        |      |                     |      |
|------------|-------------------|-----|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID  | <b>ics-4233</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |     | Batch ID:      | <b>4233</b>       |      | RunNo:    | <b>6186</b>                            |      |                     |      |
| Prep Date: | <b>10/10/2012</b> |     | Analysis Date: | <b>10/12/2012</b> |      | SeqNo:    | <b>178245</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |

### Qualifiers:

|   |                                            |    |                                                    |
|---|--------------------------------------------|----|----------------------------------------------------|
| * | Value exceeds Maximum Contaminant Level.   | B  | Analyte detected in the associated Method Blank    |
| E | Value above quantitation range             | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit                |
| P | Sample pH greater than 2                   | R  | RPD outside accepted recovery limits               |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4233   |      | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       |      | Batch ID: 4233            |             | RunNo: 6186                               |          |              |      |          |      |
| Prep Date:                 | 10/10/2012 |      | Analysis Date: 10/12/2012 |             | SeqNo: 178245                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2        | 0.20 | 1.670                     | 0           | 74.2                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6        | 0.50 | 3.330                     | 0           | 77.5                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.6        | 0.20 | 3.330                     | 0           | 78.2                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20 | 1.670                     | 0           | 76.1                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.5        | 0.50 | 1.670                     | 0           | 88.0                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.3        | 0.20 | 1.670                     | 0           | 77.9                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.7        | 0.25 | 3.330                     | 0           | 80.1                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.2        | 0.40 | 3.330                     | 0           | 65.4                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5        | 0.20 | 3.330                     | 0           | 76.4                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.2        | 0.20 | 1.670                     | 0           | 72.4                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.3        | 0.20 | 1.670                     | 0           | 79.2                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 2.8        |      | 3.330                     |             | 83.6                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.4        |      | 1.670                     |             | 82.0                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.3        |      | 3.330                     |             | 70.1                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.2        |      | 1.670                     |             | 71.4                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.4        |      | 1.670                     |             | 86.7                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 2.8        |      | 3.330                     |             | 82.9                                      | 20.3     | 132          |      |          |      |

|                            |                    |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|--------------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210521-001Cms     |      | SampType: MS              |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | SWMU 1-24 (0-0.5') |      | Batch ID: 4233            |             | RunNo: 6186                               |          |              |      |          |      |
| Prep Date:                 | 10/10/2012         |      | Analysis Date: 10/12/2012 |             | SeqNo: 178519                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result             | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.5                | 0.99 | 1.659                     | 0           | 89.8                                      | 38.6     | 100          |      |          |      |
| 4-Chloro-3-methylphenol    | 2.9                | 2.5  | 3.309                     | 0           | 87.7                                      | 35.8     | 108          |      |          |      |
| 2-Chlorophenol             | 2.8                | 0.99 | 3.309                     | 0           | 83.3                                      | 48.2     | 96.1         |      |          |      |
| 1,4-Dichlorobenzene        | 1.2                | 0.99 | 1.659                     | 0           | 75.0                                      | 42.5     | 97.6         |      |          |      |
| 2,4-Dinitrotoluene         | ND                 | 2.5  | 1.659                     | 0           | 93.1                                      | 51.2     | 108          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4                | 0.99 | 1.659                     | 0           | 83.8                                      | 31.6     | 114          |      |          |      |
| 4-Nitrophenol              | 3.1                | 1.2  | 3.309                     | 0           | 92.2                                      | 22.7     | 144          |      |          |      |
| Pentachlorophenol          | ND                 | 2.0  | 3.309                     | 0           | 59.1                                      | 24       | 109          |      |          |      |
| Phenol                     | 2.8                | 0.99 | 3.309                     | 0           | 83.5                                      | 33.1     | 108          |      |          |      |
| Pyrene                     | 1.4                | 0.99 | 1.659                     | 0           | 83.6                                      | 42.7     | 98.9         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4                | 0.99 | 1.659                     | 0           | 82.2                                      | 27.1     | 118          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0                |      | 3.309                     |             | 89.6                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.4                |      | 1.659                     |             | 86.7                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.9                |      | 3.309                     |             | 86.5                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3                |      | 1.659                     |             | 77.2                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.4                |      | 1.659                     |             | 83.5                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0                |      | 3.309                     |             | 91.1                                      | 20.3     | 132          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                    |                           |           |                                           |      |          |              |      |          |      |
|----------------------------|--------------------|---------------------------|-----------|-------------------------------------------|------|----------|--------------|------|----------|------|
| Sample ID                  | 1210521-001Cmsd    | SampType: MSD             |           | TestCode: EPA Method 8270C: Semivolatiles |      |          |              |      |          |      |
| Client ID:                 | SWMU 1-24 (0-0.5') | Batch ID: 4233            |           | RunNo: 6186                               |      |          |              |      |          |      |
| Prep Date:                 | 10/10/2012         | Analysis Date: 10/12/2012 |           | SeqNo: 178527                             |      |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result             | PQL                       | SPK value | SPK Ref Val                               | %REC | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.6                | 1.0                       | 1.674     | 0                                         | 93.6 | 38.6     | 100          | 5.03 | 20       |      |
| 4-Chloro-3-methylphenol    | 3.1                | 2.5                       | 3.339     | 0                                         | 93.0 | 35.8     | 108          | 6.82 | 20       |      |
| 2-Chlorophenol             | 2.8                | 1.0                       | 3.339     | 0                                         | 84.1 | 48.2     | 96.1         | 1.85 | 20       |      |
| 1,4-Dichlorobenzene        | 1.3                | 1.0                       | 1.674     | 0                                         | 80.3 | 42.5     | 97.6         | 7.71 | 20       |      |
| 2,4-Dinitrotoluene         | ND                 | 2.5                       | 1.674     | 0                                         | 98.1 | 51.2     | 108          | 0    | 20       |      |
| N-Nitrosodi-n-propylamine  | 1.5                | 1.0                       | 1.674     | 0                                         | 86.9 | 31.6     | 114          | 4.52 | 20       |      |
| 4-Nitrophenol              | 3.3                | 1.3                       | 3.339     | 0                                         | 99.6 | 22.7     | 144          | 8.57 | 20       |      |
| Pentachlorophenol          | ND                 | 2.0                       | 3.339     | 0                                         | 59.1 | 24       | 109          | 0    | 20       |      |
| Phenol                     | 2.7                | 1.0                       | 3.339     | 0                                         | 81.1 | 33.1     | 108          | 1.96 | 20       |      |
| Pyrene                     | 1.6                | 1.0                       | 1.674     | 0                                         | 95.7 | 42.7     | 98.9         | 14.4 | 20       |      |
| 1,2,4-Trichlorobenzene     | 1.5                | 1.0                       | 1.674     | 0                                         | 87.1 | 27.1     | 118          | 6.67 | 20       |      |
| Surr: 2,4,6-Tribromophenol | 3.0                |                           | 3.339     |                                           | 88.8 | 21.3     | 145          | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5                |                           | 1.674     |                                           | 87.7 | 20       | 131          | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 2.8                |                           | 3.339     |                                           | 85.2 | 11.9     | 130          | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.3                |                           | 1.674     |                                           | 79.0 | 25.1     | 149          | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 1.5                |                           | 1.674     |                                           | 88.2 | 25.6     | 137          | 0    | 0        |      |
| Surr: Phenol-d5            | 3.0                |                           | 3.339     |                                           | 88.9 | 20.3     | 132          | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4314    |       | SampType: mblk            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4314            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012 |       | Analysis Date: 10/16/2012 |             | SeqNo: 180677                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4314   |       | SampType: lcs             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4314            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012 |       | Analysis Date: 10/16/2012 |             | SeqNo: 180678                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 100                                | 80       | 120          |      |          |      |

|            |                |       |                           |             |                                    |          |              |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210582-006CMS |       | SampType: ms              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4314            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012     |       | Analysis Date: 10/16/2012 |             | SeqNo: 180706                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17           | 0.033 | 0.1669                    | 0.01973     | 92.8                               | 75       | 125          |      |          |      |

|            |                 |       |                           |             |                                    |          |              |      |          |      |
|------------|-----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210582-006CMSD |       | SampType: msd             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: 4314            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012      |       | Analysis Date: 10/16/2012 |             | SeqNo: 180707                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result          | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | 0.18            | 0.033 | 0.1660                    | 0.01973     | 95.3                               | 75       | 125          | 1.94 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4298    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4298       | RunNo:    | 6281                          |        |       |  |  |  |
| Prep Date: | 10/15/2012 | Analysis Date: | 10/16/2012 | SeqNo:    | 180997                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Silver    | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4298   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4298       | RunNo:    | 6281                          |        |       |  |  |  |
| Prep Date: | 10/15/2012 | Analysis Date: | 10/16/2012 | SeqNo:    | 181002                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 22     | 2.5  | 25.00     | 0           | 86.4 | 80       | 120       |      |          |      |
| Arsenic   | 26     | 2.5  | 25.00     | 0           | 105  | 80       | 120       |      |          |      |
| Barium    | 25     | 0.10 | 25.00     | 0           | 98.6 | 80       | 120       |      |          |      |
| Beryllium | 26     | 0.15 | 25.00     | 0           | 104  | 80       | 120       |      |          |      |
| Cadmium   | 25     | 0.10 | 25.00     | 0           | 101  | 80       | 120       |      |          |      |
| Chromium  | 25     | 0.30 | 25.00     | 0           | 98.3 | 80       | 120       |      |          |      |
| Cobalt    | 24     | 0.30 | 25.00     | 0           | 98.0 | 80       | 120       |      |          |      |
| Lead      | 25     | 0.25 | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Manganese | 24     | 0.10 | 25.00     | 0.03550     | 97.1 | 80       | 120       |      |          |      |
| Nickel    | 24     | 0.50 | 25.00     | 0           | 97.2 | 80       | 120       |      |          |      |
| Selenium  | 25     | 2.5  | 25.00     | 0           | 101  | 80       | 120       |      |          |      |
| Silver    | 5.1    | 0.25 | 5.000     | 0.06650     | 100  | 80       | 120       |      |          |      |
| Vanadium  | 25     | 2.5  | 25.00     | 0           | 100  | 80       | 120       |      |          |      |
| Zinc      | 25     | 2.5  | 25.00     | 0           | 101  | 80       | 120       |      |          |      |

|            |                    |                |            |           |                               |        |       |  |  |  |
|------------|--------------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | 1210521-001CMS     | SampType:      | MS         | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | SWMU 1-24 (0-0.5') | Batch ID:      | 4298       | RunNo:    | 6281                          |        |       |  |  |  |
| Prep Date: | 10/15/2012         | Analysis Date: | 10/16/2012 | SeqNo:    | 181043                        | Units: | mg/Kg |  |  |  |

| Analyte  | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|-----|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony | ND     | 12  | 24.89     | 0           | 0    | 75       | 125       |      |          | S    |
| Arsenic  | 23     | 12  | 24.89     | 0           | 90.6 | 75       | 125       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210521

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                    |      |                           |             |                                         |          |              |      |          |      |
|------------|--------------------|------|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210521-001CMS     |      | SampType: MS              |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | SWMU 1-24 (0-0.5') |      | Batch ID: 4298            |             | RunNo: 6281                             |          |              |      |          |      |
| Prep Date: | 10/15/2012         |      | Analysis Date: 10/16/2012 |             | SeqNo: 181043                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result             | PQL  | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Beryllium  | 25                 | 0.75 | 24.89                     | 0.6775      | 98.5                                    | 75       | 125          |      |          |      |
| Cadmium    | 23                 | 0.50 | 24.89                     | 0           | 92.7                                    | 75       | 125          |      |          |      |
| Chromium   | 38                 | 1.5  | 24.89                     | 9.549       | 114                                     | 75       | 125          |      |          |      |
| Cobalt     | 28                 | 1.5  | 24.89                     | 5.096       | 90.8                                    | 75       | 125          |      |          |      |
| Lead       | 29                 | 1.2  | 24.89                     | 9.267       | 80.3                                    | 75       | 125          |      |          |      |
| Nickel     | 35                 | 2.5  | 24.89                     | 8.978       | 106                                     | 75       | 125          |      |          |      |
| Selenium   | 22                 | 12   | 24.89                     | 0           | 89.0                                    | 75       | 125          |      |          |      |
| Silver     | 4.5                | 1.2  | 4.978                     | 0           | 90.5                                    | 75       | 125          |      |          |      |
| Vanadium   | 48                 | 12   | 24.89                     | 23.50       | 97.8                                    | 75       | 125          |      |          |      |
| Zinc       | 64                 | 12   | 24.89                     | 33.89       | 120                                     | 75       | 125          |      |          |      |

|            |                    |                           |           |                                         |      |              |           |       |          |      |
|------------|--------------------|---------------------------|-----------|-----------------------------------------|------|--------------|-----------|-------|----------|------|
| Sample ID  | 1210521-001CMSD    | SampType: MSD             |           | TestCode: EPA Method 6010B: Soil Metals |      |              |           |       |          |      |
| Client ID: | SWMU 1-24 (0-0.5') | Batch ID: 4298            |           | RunNo: 6281                             |      |              |           |       |          |      |
| Prep Date: | 10/15/2012         | Analysis Date: 10/16/2012 |           | SeqNo: 181046                           |      | Units: mg/Kg |           |       |          |      |
| Analyte    | Result             | PQL                       | SPK value | SPK Ref Val                             | %REC | LowLimit     | HighLimit | %RPD  | RPDLimit | Qual |
| Antimony   | ND                 | 12                        | 24.80     | 0                                       | 0    | 75           | 125       | 0     | 20       | S    |
| Arsenic    | 22                 | 12                        | 24.80     | 0                                       | 88.1 | 75           | 125       | 3.10  | 20       |      |
| Beryllium  | 25                 | 0.75                      | 24.80     | 0.6775                                  | 97.4 | 75           | 125       | 1.43  | 20       |      |
| Cadmium    | 23                 | 0.50                      | 24.80     | 0                                       | 91.2 | 75           | 125       | 1.97  | 20       |      |
| Chromium   | 33                 | 1.5                       | 24.80     | 9.549                                   | 93.6 | 75           | 125       | 14.6  | 20       |      |
| Cobalt     | 26                 | 1.5                       | 24.80     | 5.096                                   | 84.8 | 75           | 125       | 5.79  | 20       |      |
| Lead       | 30                 | 1.2                       | 24.80     | 9.267                                   | 81.9 | 75           | 125       | 1.10  | 20       |      |
| Nickel     | 30                 | 2.5                       | 24.80     | 8.978                                   | 86.2 | 75           | 125       | 15.4  | 20       |      |
| Selenium   | ND                 | 12                        | 24.80     | 0                                       | 0    | 75           | 125       | 200   | 20       |      |
| Silver     | 4.5                | 1.2                       | 4.960     | 0                                       | 91.3 | 75           | 125       | 0.532 | 20       | SR   |
| Vanadium   | 50                 | 12                        | 24.80     | 23.50                                   | 108  | 75           | 125       | 5.11  | 20       |      |
| Zinc       | 54                 | 12                        | 24.80     | 33.89                                   | 80.8 | 75           | 125       | 16.9  | 20       |      |

|            |            |     |                           |             |                                         |          |              |      |          |      |
|------------|------------|-----|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4298    |     | SampType: MBLK            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4298            |             | RunNo: 6310                             |          |              |      |          |      |
| Prep Date: | 10/15/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 181594                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | ND         | 1.0 |                           |             |                                         |          |              |      |          |      |

|            |            |     |                           |             |                                         |          |              |      |          |      |
|------------|------------|-----|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4298   |     | SampType: LCS             |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4298            |             | RunNo: 6310                             |          |              |      |          |      |
| Prep Date: | 10/15/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 181595                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | 26         | 1.0 | 25.00                     | 0           | 106                                     | 80       | 120          |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

## Sample Log-In Check List

|                                             |                       |                            |
|---------------------------------------------|-----------------------|----------------------------|
| Client Name: Western Refining Gallup        |                       | Work Order Number: 1210521 |
| Received by/date: <u>LM</u> <u>10/10/12</u> |                       |                            |
| Logged By: Michelle Garcia                  | 10/10/2012 8:00:00 AM | <i>Michelle Garcia</i>     |
| Completed By: Michelle Garcia               | 10/10/2012 8:54:43 AM | <i>Michelle Garcia</i>     |
| Reviewed By: <u>LM</u> <u>10/10/12</u>      |                       |                            |

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                            |                                                                                                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Person Notified: _____     | Date: _____                                                                                                                        |
| By Whom: _____             | Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding: _____           |                                                                                                                                    |
| Client Instructions: _____ |                                                                                                                                    |

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.8     | Good      | Not Present |         |           |           |

# Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.  
GALLUP REFINERY  
 Mailing Address: ROUTE 3 BOX 7  
GALLUP, NM 87301  
 Phone #: 505-722-0217  
 email or Fax#: SCOTT CROUCH -RPS

QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation  
☐ NELAP ☐ Other  
☒ EDD (Type) EXCEL

| Date    | Time | Matrix | Sample Request ID      |
|---------|------|--------|------------------------|
| 10/8/12 | 1605 | SOIL   | SWMU 1-24 (0-0.5')     |
|         |      |        | ↓                      |
|         |      |        | SWMU 1-24 (0-0.5')     |
|         |      |        | ↓                      |
|         |      |        | SWMU 1-24 (1.5-2')     |
|         |      |        | ↓                      |
|         |      |        | SWMU 1-24 (10.5-11.5') |
|         |      |        | ↓                      |
|         |      |        | ↓                      |

Date: 10/9/12 Time: 0700  
 Relinquished by: [Signature]  
 Date: 10/10/12 Time: 0800  
 Relinquished by: [Signature]

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

SWMU No. 1

Project #:

Project Manager:

SCOTT CROUCH -RPS

Sampler: TRACY PAYNE -RPS  
 On ice: ☒ Yes ☐ No

Sample Temperature: 1216521

Container Type and #  
 Preservative Type  
 HEAL No.  
1216521

|         |      |      |                        |         |      |      |
|---------|------|------|------------------------|---------|------|------|
| 10/8/12 | 1605 | SOIL | SWMU 1-24 (0-0.5')     | 2 VIALS | SOBI | -001 |
|         |      |      | ↓                      | 2 VIALS | MEOH |      |
|         |      |      | ↓                      | 3 JARS  | -    |      |
|         |      |      | SWMU 1-24 (0-0.5')     | 2 VIALS | SOBI | -002 |
|         |      |      | ↓                      | 2 VIALS | MEOH |      |
|         |      |      | ↓                      | 3 JARS  | -    |      |
|         |      |      | SWMU 1-24 (1.5-2')     | 2 VIALS | SOBI | -003 |
|         |      |      | ↓                      | 2 VIALS | MEOH |      |
|         |      |      | ↓                      | 3 JARS  | -    |      |
|         |      |      | SWMU 1-24 (10.5-11.5') | 2 VIALS | SOBI | -004 |
|         |      |      | ↓                      | 2 VIALS | MEOH |      |
|         |      |      | ↓                      | 3 JARS  | -    |      |

Date: 10/10/12 Time: 0800  
 Received by: [Signature]  
 Date: 10/10/12 Time: 0800  
 Received by: [Signature]



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

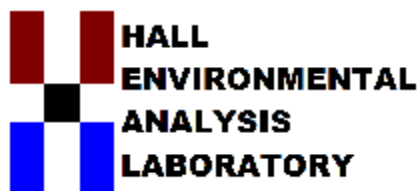
|                                                                                        |  |
|----------------------------------------------------------------------------------------|--|
| BTEX + MTBE + TMB's (8021)                                                             |  |
| BTEX + MTBE + TPH (Gas only)                                                           |  |
| TPH 8015B (GRO / DRO / MRO)                                                            |  |
| TPH (Method 418.1)                                                                     |  |
| EDB (Method 504.1)                                                                     |  |
| PAH's (8310 or 8270 SIMS)                                                              |  |
| RCRA 8 Metals                                                                          |  |
| Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) |  |
| 8081 Pesticides / 8082 PCB's                                                           |  |
| 8260B (VOA) + TPH GRO                                                                  |  |
| 8270 (Semi-VOA)                                                                        |  |
| TPH MRO & DRO                                                                          |  |
| METALS                                                                                 |  |
| Air Bubbles (Y or N)                                                                   |  |

Remarks:



| Rpt                                 | T | Analyte              | Units | Synonym | MDL     | LOD | LOQ |
|-------------------------------------|---|----------------------|-------|---------|---------|-----|-----|
| <input type="checkbox"/>            | A | Aluminum             | mg/Kg |         | 0.4481  | 0   |     |
| <input checked="" type="checkbox"/> | A | Antimony             | mg/Kg |         | 0.629   | 0   |     |
| <input checked="" type="checkbox"/> | A | Arsenic              | mg/Kg |         | 0.6263  | 0   |     |
| <input checked="" type="checkbox"/> | A | Barium               | mg/Kg |         | 0.0609  | 0   |     |
| <input checked="" type="checkbox"/> | A | Beryllium            | mg/Kg |         | 0.0093  | 0   |     |
| <input type="checkbox"/>            | A | Boron                | mg/Kg |         | 0.0826  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cadmium              | mg/Kg |         | 0.0271  | 0   |     |
| <input type="checkbox"/>            | A | Calcium              | mg/Kg |         | 6.9713  | 0   |     |
| <input checked="" type="checkbox"/> | A | Chromium             | mg/Kg |         | 0.1184  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cobalt               | mg/Kg |         | 0.0689  | 0   |     |
| <input type="checkbox"/>            | A | Copper               | mg/Kg |         | 0.2323  | 0   |     |
| <input checked="" type="checkbox"/> | A | Iron                 | mg/Kg |         | 0.7476  | 0   |     |
| <input checked="" type="checkbox"/> | A | Lead                 | mg/Kg |         | 0.2194  | 0   |     |
| <input type="checkbox"/>            | A | Magnesium            | mg/Kg |         | 0.4651  | 0   |     |
| <input checked="" type="checkbox"/> | A | Manganese            | mg/Kg |         | 0.0212  | 0   |     |
| <input type="checkbox"/>            | A | Molybdenum           | mg/Kg |         | 0.1423  | 0   |     |
| <input checked="" type="checkbox"/> | A | Nickel               | mg/Kg |         | 0.1668  | 0   |     |
| <input type="checkbox"/>            | A | Potassium            | mg/Kg |         | 17.3925 | 0   |     |
| <input checked="" type="checkbox"/> | A | Selenium             | mg/Kg |         | 1.4025  | 0   |     |
| <input checked="" type="checkbox"/> | A | Silver               | mg/Kg |         | 0.0354  | 0   |     |
| <input type="checkbox"/>            | A | Sodium               | mg/Kg |         | 8.4278  | 0   |     |
| <input type="checkbox"/>            | A | Thallium             | mg/Kg |         | 1.1557  | 0   |     |
| <input type="checkbox"/>            | A | Tin                  | mg/Kg |         | 0.8261  | 0   |     |
| <input type="checkbox"/>            | A | Titanium             | mg/Kg |         | 0.0342  | 0   |     |
| <input type="checkbox"/>            | A | Uranium              | mg/Kg |         | 0.7296  | 0   |     |
| <input checked="" type="checkbox"/> | A | Vanadium             | mg/Kg |         | 0.0565  | 0   |     |
| <input checked="" type="checkbox"/> | A | Zinc                 | mg/Kg |         | 1.0066  | 0   |     |
| <input type="checkbox"/>            | I | Yttrium              | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | I | Yttrium Radial       | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Uranium-confirmation | mg/Kg |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Silicon              | mg/Kg |         | 0       | 0   |     |

+Hg  
+Cn



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 15, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210653

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/12/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:00:00 PM

**Lab ID:** 1210653-001

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 100    | 9.9      |      | mg/Kg | 1   | 10/15/2012 8:42:53 AM  |
| Motor Oil Range Organics (MRO)                 | 130    | 50       |      | mg/Kg | 1   | 10/15/2012 8:42:53 AM  |
| Surr: DNOP                                     | 95.4   | 77.6-140 |      | %REC  | 1   | 10/15/2012 8:42:53 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/13/2012 5:03:50 AM  |
| Surr: BFB                                      | 106    | 84-116   |      | %REC  | 1   | 10/13/2012 5:03:50 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.051  | 0.033    |      | mg/kg | 1   | 10/16/2012 5:39:07 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Barium                                         | 350    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:29:16 PM |
| Beryllium                                      | 0.85   | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Chromium                                       | 17     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Cobalt                                         | 4.7    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Iron                                           | 18000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:21:33 AM   |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Manganese                                      | 610    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:24:36 PM  |
| Nickel                                         | 8.4    | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 2:11:45 PM  |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| Zinc                                           | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:46:22 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:01:42 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:00:00 PM

**Lab ID:** 1210653-001

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:00:00 PM

**Lab ID:** 1210653-001

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:01:42 AM |
| Surr: 2,4,6-Tribromophenol             | 85.3    | 21.3-145 |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| Surr: 2-Fluorobiphenyl                 | 86.3    | 20-131   |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| Surr: 2-Fluorophenol                   | 78.5    | 11.9-130 |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| Surr: 4-Terphenyl-d14                  | 83.1    | 25.1-149 |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| Surr: Nitrobenzene-d5                  | 92.0    | 25.6-137 |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| Surr: Phenol-d5                        | 80.4    | 20.3-132 |      | %REC  | 1  | 10/21/2012 11:01:42 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00239 | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Toluene                                | 0.00454 | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Ethylbenzene                           | 0.00119 | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Xylenes, Total                         | 0.00526 | 0.00193  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 1,2,4-Trimethylbenzene                 | 0.00193 | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Naphthalene                            | ND      | 0.00193  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00385  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00385  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Acetone                                | 0.109   | 0.00964  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Bromobenzene                           | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Bromodichloromethane                   | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Bromoform                              | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Bromomethane                           | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| 2-Butanone                             | 0.0182  | 0.00964  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Carbon tetrachloride                   | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Chlorobenzene                          | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |
| Chloroethane                           | ND      | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-37 (0-0.5')

Project: SWMU NO.1

Collection Date: 10/10/2012 5:00:00 PM

Lab ID: 1210653-001

Matrix: SOIL

Received Date: 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Chloromethane                          | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 2-Chlorotoluene                        | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Carbon disulfide                       | ND     | 0.00964  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 4-Chlorotoluene                        | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| cis-1,2-DCE                            | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Dibromochloromethane                   | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Dibromomethane                         | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Dichlorodifluoromethane                | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1-Dichloroethane                     | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1-Dichloroethene                     | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,2-Dichloropropane                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,3-Dichloropropane                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 2,2-Dichloropropane                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1-Dichloropropene                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Hexachlorobutadiene                    | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Isopropylbenzene                       | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 4-Isopropyltoluene                     | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Methylene chloride                     | ND     | 0.00289  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| n-Butylbenzene                         | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 2-Hexanone                             | ND     | 0.00964  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| n-Propylbenzene                        | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| sec-Butylbenzene                       | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Styrene                                | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 4-Methyl-2-pentanone                   | 0.0116 | 0.00964  |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| tert-Butylbenzene                      | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| trans-1,2-DCE                          | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Trichloroethene (TCE)                  | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Trichlorofluoromethane                 | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:00:00 PM

**Lab ID:** 1210653-001

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Vinyl chloride                         | ND     | 0.000964 |      | mg/Kg | 1  | 10/12/2012 1:16:16 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.0   | 70-130   |      | %REC  | 1  | 10/12/2012 1:16:16 PM |
| Surr: 4-Bromofluorobenzene             | 104    | 70-130   |      | %REC  | 1  | 10/12/2012 1:16:16 PM |
| Surr: Dibromofluoromethane             | 109    | 70-130   |      | %REC  | 1  | 10/12/2012 1:16:16 PM |
| Surr: Toluene-d8                       | 91.2   | 70-130   |      | %REC  | 1  | 10/12/2012 1:16:16 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:15:00 PM

**Lab ID:** 1210653-002

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 100    | 9.9      |      | mg/Kg | 1   | 10/15/2012 9:49:38 AM  |
| Motor Oil Range Organics (MRO)                 | 130    | 50       |      | mg/Kg | 1   | 10/15/2012 9:49:38 AM  |
| Surr: DNOP                                     | 95.1   | 77.6-140 |      | %REC  | 1   | 10/15/2012 9:49:38 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/13/2012 5:32:35 AM  |
| Surr: BFB                                      | 103    | 84-116   |      | %REC  | 1   | 10/13/2012 5:32:35 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.054  | 0.033    |      | mg/kg | 1   | 10/16/2012 5:40:53 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Barium                                         | 370    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:42:54 PM |
| Beryllium                                      | 0.79   | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Chromium                                       | 24     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Cobalt                                         | 4.4    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Iron                                           | 16000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:24:23 AM   |
| Lead                                           | 3.1    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Manganese                                      | 570    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:27:00 PM  |
| Nickel                                         | 7.6    | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 2:27:29 PM  |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| Zinc                                           | 25     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:37 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Acenaphthylene                                 | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Aniline                                        | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Anthracene                                     | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Azobenzene                                     | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benz(a)anthracene                              | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzo(a)pyrene                                 | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzo(b)fluoranthene                           | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzo(k)fluoranthene                           | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Benzyl alcohol                                 | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.41     |      | mg/Kg | 1   | 10/21/2012 12:29:49 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:15:00 PM

**Lab ID:** 1210653-002

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Butyl benzyl phthalate                 | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Carbazole                              | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Chloronaphthalene                    | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Chlorophenol                         | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Chrysene                               | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Di-n-octyl phthalate                   | ND     | 0.82 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Dibenzofuran                           | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Diethyl phthalate                      | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Dimethyl phthalate                     | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4-Dichlorophenol                     | ND     | 0.82 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4-Dimethylphenol                     | ND     | 0.61 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4-Dinitrophenol                      | ND     | 0.82 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Fluoranthene                           | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Fluorene                               | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Hexachlorobenzene                      | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Hexachlorobutadiene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Hexachlorocyclopentadiene              | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Hexachloroethane                       | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 1-Methylnaphthalene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Methylnaphthalene                    | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 3+4-Methylphenol                       | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Naphthalene                            | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Nitroaniline                         | ND     | 0.41 |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |

**Qualifiers:**

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- P Sample pH greater than 2
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:15:00 PM

**Lab ID:** 1210653-002

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Nitroaniline                         | ND      | 0.82     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2-Nitrophenol                          | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 4-Nitrophenol                          | ND      | 0.51     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Pentachlorophenol                      | ND      | 0.82     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Phenanthrene                           | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Phenol                                 | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Pyrene                                 | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.41     |      | mg/Kg | 1  | 10/21/2012 12:29:49 PM |
| Surr: 2,4,6-Tribromophenol             | 96.2    | 21.3-145 |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| Surr: 2-Fluorobiphenyl                 | 89.1    | 20-131   |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| Surr: 2-Fluorophenol                   | 84.3    | 11.9-130 |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| Surr: 4-Terphenyl-d14                  | 89.0    | 25.1-149 |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| Surr: Nitrobenzene-d5                  | 102     | 25.6-137 |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| Surr: Phenol-d5                        | 82.5    | 20.3-132 |      | %REC  | 1  | 10/21/2012 12:29:49 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00203 | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Toluene                                | 0.00259 | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Ethylbenzene                           | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Xylenes, Total                         | 0.00305 | 0.00152  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 1,2,4-Trimethylbenzene                 | 0.00112 | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Naphthalene                            | ND      | 0.00152  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00304  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00304  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Acetone                                | 0.0745  | 0.00759  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Bromobenzene                           | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Bromodichloromethane                   | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Bromoform                              | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Bromomethane                           | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| 2-Butanone                             | 0.00999 | 0.00759  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Carbon tetrachloride                   | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Chlorobenzene                          | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |
| Chloroethane                           | ND      | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:15:00 PM

**Lab ID:** 1210653-002

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Chloromethane                          | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 2-Chlorotoluene                        | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Carbon disulfide                       | ND     | 0.00759  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 4-Chlorotoluene                        | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| cis-1,2-DCE                            | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Dibromochloromethane                   | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Dibromomethane                         | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Dichlorodifluoromethane                | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1-Dichloroethane                     | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1-Dichloroethene                     | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,2-Dichloropropane                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,3-Dichloropropane                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 2,2-Dichloropropane                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1-Dichloropropene                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Hexachlorobutadiene                    | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Isopropylbenzene                       | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 4-Isopropyltoluene                     | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Methylene chloride                     | ND     | 0.00228  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| n-Butylbenzene                         | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 2-Hexanone                             | ND     | 0.00759  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| n-Propylbenzene                        | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| sec-Butylbenzene                       | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Styrene                                | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00759  |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| tert-Butylbenzene                      | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| trans-1,2-DCE                          | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Trichloroethene (TCE)                  | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Trichlorofluoromethane                 | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:15:00 PM

**Lab ID:** 1210653-002

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Vinyl chloride                         | ND     | 0.000759 |      | mg/Kg | 1  | 10/12/2012 1:47:09 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.9   | 70-130   |      | %REC  | 1  | 10/12/2012 1:47:09 PM |
| Surr: 4-Bromofluorobenzene             | 93.5   | 70-130   |      | %REC  | 1  | 10/12/2012 1:47:09 PM |
| Surr: Dibromofluoromethane             | 97.3   | 70-130   |      | %REC  | 1  | 10/12/2012 1:47:09 PM |
| Surr: Toluene-d8                       | 92.5   | 70-130   |      | %REC  | 1  | 10/12/2012 1:47:09 PM |

### Qualifiers:

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E Value above quantitation range  
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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8-8.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:30:00 PM

**Lab ID:** 1210653-003

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/13/2012 3:25:45 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/13/2012 3:25:45 PM  |
| Surr: DNOP                                     | 93.5   | 77.6-140 |      | %REC  | 1   | 10/13/2012 3:25:45 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/13/2012 6:01:17 AM  |
| Surr: BFB                                      | 108    | 84-116   |      | %REC  | 1   | 10/13/2012 6:01:17 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/16/2012 5:42:39 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Barium                                         | 130    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:47:59 PM |
| Beryllium                                      | 0.77   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Chromium                                       | 10     | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Iron                                           | 18000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:27:16 AM   |
| Lead                                           | 3.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Manganese                                      | 350    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:47:59 PM |
| Nickel                                         | 7.3    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 2:32:46 PM  |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| Zinc                                           | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:06:49 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzoic acid                                   | ND     | 0.49     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 9:35:54 PM  |

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- P Sample pH greater than 2
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8-8.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:30:00 PM

**Lab ID:** 1210653-003

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Chloroaniline                        | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Di-n-butyl phthalate                   | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Isophorone                             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Methylphenol                         | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8-8.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:30:00 PM

**Lab ID:** 1210653-003

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Nitrobenzene                           | ND      | 0.49     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Pyridine                               | ND      | 0.49     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 9:35:54 PM |
| Surr: 2,4,6-Tribromophenol             | 76.3    | 21.3-145 |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| Surr: 2-Fluorobiphenyl                 | 85.2    | 20-131   |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| Surr: 2-Fluorophenol                   | 83.5    | 11.9-130 |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| Surr: 4-Terphenyl-d14                  | 79.6    | 25.1-149 |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| Surr: Nitrobenzene-d5                  | 91.7    | 25.6-137 |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| Surr: Phenol-d5                        | 89.2    | 20.3-132 |      | %REC  | 1  | 10/20/2012 9:35:54 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00174 | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Toluene                                | 0.00109 | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Ethylbenzene                           | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Xylenes, Total                         | ND      | 0.00210  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Methyl tert-butyl ether (MTBE)         | 0.0101  | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Naphthalene                            | ND      | 0.00210  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1-Methylnaphthalene                    | ND      | 0.00420  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 2-Methylnaphthalene                    | ND      | 0.00420  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Acetone                                | 0.0133  | 0.0105   |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Bromobenzene                           | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Bromodichloromethane                   | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Bromoform                              | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Bromomethane                           | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 2-Butanone                             | ND      | 0.0105   |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Carbon tetrachloride                   | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Chlorobenzene                          | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Chloroethane                           | ND      | 0.00105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8-8.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:30:00 PM

**Lab ID:** 1210653-003

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Chloromethane                          | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 2-Chlorotoluene                        | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Carbon disulfide                       | ND     | 0.0105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 4-Chlorotoluene                        | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| cis-1,2-DCE                            | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Dibromochloromethane                   | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Dibromomethane                         | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Dichlorodifluoromethane                | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1-Dichloroethane                     | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1-Dichloroethene                     | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2-Dichloropropane                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,3-Dichloropropane                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 2,2-Dichloropropane                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1-Dichloropropene                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Hexachlorobutadiene                    | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Isopropylbenzene                       | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 4-Isopropyltoluene                     | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Methylene chloride                     | ND     | 0.00315 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| n-Butylbenzene                         | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 2-Hexanone                             | ND     | 0.0105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| n-Propylbenzene                        | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| sec-Butylbenzene                       | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Styrene                                | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0105  |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| tert-Butylbenzene                      | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| trans-1,2-DCE                          | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Trichloroethene (TCE)                  | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Trichlorofluoromethane                 | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8-8.5')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:30:00 PM

**Lab ID:** 1210653-003

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Vinyl chloride                         | ND     | 0.00105 |      | mg/Kg | 1  | 10/12/2012 5:22:40 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.7   | 70-130  |      | %REC  | 1  | 10/12/2012 5:22:40 PM |
| Surr: 4-Bromofluorobenzene             | 90.6   | 70-130  |      | %REC  | 1  | 10/12/2012 5:22:40 PM |
| Surr: Dibromofluoromethane             | 96.8   | 70-130  |      | %REC  | 1  | 10/12/2012 5:22:40 PM |
| Surr: Toluene-d8                       | 89.1   | 70-130  |      | %REC  | 1  | 10/12/2012 5:22:40 PM |

### Qualifiers:

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8.5-9')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:40:00 PM

**Lab ID:** 1210653-004

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/13/2012 3:50:51 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/13/2012 3:50:51 PM  |
| Surr: DNOP                                     | 95.1   | 77.6-140 |      | %REC  | 1   | 10/13/2012 3:50:51 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/13/2012 6:58:44 AM  |
| Surr: BFB                                      | 105    | 84-116   |      | %REC  | 1   | 10/13/2012 6:58:44 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/16/2012 5:44:26 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Barium                                         | 130    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:54:40 PM |
| Beryllium                                      | 0.83   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Chromium                                       | 8.6    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Iron                                           | 16000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:30:08 AM   |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Manganese                                      | 230    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:54:40 PM |
| Nickel                                         | 6.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 2:38:00 PM  |
| Vanadium                                       | 14     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| Zinc                                           | 13     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:12:01 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:05:15 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8.5-9')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:40:00 PM

**Lab ID:** 1210653-004

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8.5-9')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:40:00 PM

**Lab ID:** 1210653-004

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:05:15 PM |
| Surr: 2,4,6-Tribromophenol             | 82.8    | 21.3-145 |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| Surr: 2-Fluorobiphenyl                 | 92.7    | 20-131   |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| Surr: 2-Fluorophenol                   | 83.4    | 11.9-130 |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| Surr: 4-Terphenyl-d14                  | 81.7    | 25.1-149 |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| Surr: Nitrobenzene-d5                  | 97.4    | 25.6-137 |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| Surr: Phenol-d5                        | 90.8    | 20.3-132 |      | %REC  | 1  | 10/20/2012 10:05:15 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00221 | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Toluene                                | 0.00179 | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Ethylbenzene                           | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Xylenes, Total                         | ND      | 0.00273  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Methyl tert-butyl ether (MTBE)         | 0.0444  | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Naphthalene                            | ND      | 0.00273  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00546  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00546  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Acetone                                | 0.0148  | 0.0136   |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Bromobenzene                           | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Bromodichloromethane                   | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Bromoform                              | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Bromomethane                           | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| 2-Butanone                             | ND      | 0.0136   |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Carbon tetrachloride                   | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Chlorobenzene                          | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |
| Chloroethane                           | ND      | 0.00136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8.5-9')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:40:00 PM

**Lab ID:** 1210653-004

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Chloromethane                          | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 2-Chlorotoluene                        | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Carbon disulfide                       | ND     | 0.0136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 4-Chlorotoluene                        | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| cis-1,2-DCE                            | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Dibromochloromethane                   | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Dibromomethane                         | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Dichlorodifluoromethane                | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1-Dichloroethane                     | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1-Dichloroethene                     | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,2-Dichloropropane                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,3-Dichloropropane                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 2,2-Dichloropropane                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1-Dichloropropene                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Hexachlorobutadiene                    | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Isopropylbenzene                       | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 4-Isopropyltoluene                     | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Methylene chloride                     | ND     | 0.00409 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| n-Butylbenzene                         | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 2-Hexanone                             | ND     | 0.0136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| n-Propylbenzene                        | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| sec-Butylbenzene                       | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Styrene                                | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0136  |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| tert-Butylbenzene                      | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| trans-1,2-DCE                          | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Trichloroethene (TCE)                  | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Trichlorofluoromethane                 | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (8.5-9')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:40:00 PM

**Lab ID:** 1210653-004

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Vinyl chloride                         | ND     | 0.00136 |      | mg/Kg | 1  | 10/12/2012 2:18:01 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.1   | 70-130  |      | %REC  | 1  | 10/12/2012 2:18:01 PM |
| Surr: 4-Bromofluorobenzene             | 92.2   | 70-130  |      | %REC  | 1  | 10/12/2012 2:18:01 PM |
| Surr: Dibromofluoromethane             | 94.0   | 70-130  |      | %REC  | 1  | 10/12/2012 2:18:01 PM |
| Surr: Toluene-d8                       | 101    | 70-130  |      | %REC  | 1  | 10/12/2012 2:18:01 PM |

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R RPD outside accepted recovery limits  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (12-13')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:55:00 PM

**Lab ID:** 1210653-005

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/13/2012 4:16:00 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/13/2012 4:16:00 PM  |
| Surr: DNOP                                     | 96.3   | 77.6-140 |      | %REC  | 1   | 10/13/2012 4:16:00 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/13/2012 7:27:25 AM  |
| Surr: BFB                                      | 110    | 84-116   |      | %REC  | 1   | 10/13/2012 7:27:25 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/16/2012 5:46:14 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Barium                                         | 210    | 1.0      |      | mg/Kg | 10  | 10/25/2012 12:59:33 PM |
| Beryllium                                      | 0.72   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Chromium                                       | 15     | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Iron                                           | 15000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:43:03 AM   |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Manganese                                      | 530    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:32:04 PM  |
| Nickel                                         | 6.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 2:43:15 PM  |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| Zinc                                           | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:17:05 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 8:07:34 AM  |

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (12-13')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:55:00 PM

**Lab ID:** 1210653-005

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (12-13')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:55:00 PM

**Lab ID:** 1210653-005

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|----------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Nitroaniline                         | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Nitrobenzene                           | ND       | 0.50     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2-Nitrophenol                          | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 4-Nitrophenol                          | ND       | 0.25     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Pentachlorophenol                      | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Phenanthrene                           | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Phenol                                 | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Pyrene                                 | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Pyridine                               | ND       | 0.50     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 1,2,4-Trichlorobenzene                 | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4,5-Trichlorophenol                  | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| 2,4,6-Trichlorophenol                  | ND       | 0.20     |      | mg/Kg | 1  | 10/21/2012 8:07:34 AM |
| Surr: 2,4,6-Tribromophenol             | 93.7     | 21.3-145 |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| Surr: 2-Fluorobiphenyl                 | 88.9     | 20-131   |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| Surr: 2-Fluorophenol                   | 85.9     | 11.9-130 |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| Surr: 4-Terphenyl-d14                  | 90.4     | 25.1-149 |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| Surr: Nitrobenzene-d5                  | 105      | 25.6-137 |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| Surr: Phenol-d5                        | 87.5     | 20.3-132 |      | %REC  | 1  | 10/21/2012 8:07:34 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00165  | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Toluene                                | 0.000948 | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Ethylbenzene                           | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Xylenes, Total                         | ND       | 0.00184  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Methyl tert-butyl ether (MTBE)         | 0.00957  | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2,4-Trimethylbenzene                 | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,3,5-Trimethylbenzene                 | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Naphthalene                            | ND       | 0.00184  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1-Methylnaphthalene                    | ND       | 0.00368  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 2-Methylnaphthalene                    | ND       | 0.00368  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Acetone                                | 0.0141   | 0.00921  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Bromobenzene                           | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Bromodichloromethane                   | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Bromoform                              | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Bromomethane                           | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 2-Butanone                             | ND       | 0.00921  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Carbon tetrachloride                   | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Chlorobenzene                          | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Chloroethane                           | ND       | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (12-13')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:55:00 PM

**Lab ID:** 1210653-005

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Chloromethane                          | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 2-Chlorotoluene                        | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Carbon disulfide                       | ND     | 0.00921  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 4-Chlorotoluene                        | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| cis-1,2-DCE                            | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Dibromochloromethane                   | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Dibromomethane                         | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Dichlorodifluoromethane                | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1-Dichloroethane                     | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1-Dichloroethene                     | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2-Dichloropropane                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,3-Dichloropropane                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 2,2-Dichloropropane                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1-Dichloropropene                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Hexachlorobutadiene                    | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Isopropylbenzene                       | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 4-Isopropyltoluene                     | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Methylene chloride                     | ND     | 0.00276  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| n-Butylbenzene                         | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 2-Hexanone                             | ND     | 0.00921  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| n-Propylbenzene                        | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| sec-Butylbenzene                       | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Styrene                                | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00921  |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| tert-Butylbenzene                      | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| trans-1,2-DCE                          | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Trichloroethene (TCE)                  | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Trichlorofluoromethane                 | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (12-13')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 5:55:00 PM

**Lab ID:** 1210653-005

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Vinyl chloride                         | ND     | 0.000921 |      | mg/Kg | 1  | 10/12/2012 2:48:49 PM |
| Surr: 1,2-Dichloroethane-d4            | 110    | 70-130   |      | %REC  | 1  | 10/12/2012 2:48:49 PM |
| Surr: 4-Bromofluorobenzene             | 91.1   | 70-130   |      | %REC  | 1  | 10/12/2012 2:48:49 PM |
| Surr: Dibromofluoromethane             | 112    | 70-130   |      | %REC  | 1  | 10/12/2012 2:48:49 PM |
| Surr: Toluene-d8                       | 90.1   | 70-130   |      | %REC  | 1  | 10/12/2012 2:48:49 PM |

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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (13-14')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:05:00 PM

**Lab ID:** 1210653-006

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/13/2012 4:41:24 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/13/2012 4:41:24 PM  |
| Surr: DNOP                                     | 96.1   | 77.6-140 |      | %REC  | 1   | 10/13/2012 4:41:24 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/19/2012 6:38:09 PM  |
| Surr: BFB                                      | 94.3   | 84-116   |      | %REC  | 1   | 10/19/2012 6:38:09 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/16/2012 5:55:24 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Barium                                         | 280    | 1.0      |      | mg/Kg | 10  | 10/25/2012 1:06:48 PM  |
| Beryllium                                      | 1.2    | 0.75     |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Chromium                                       | 13     | 1.5      |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Cobalt                                         | 6.0    | 1.5      |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Iron                                           | 20000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:45:53 AM   |
| Lead                                           | 4.0    | 1.2      |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Manganese                                      | 320    | 1.0      |      | mg/Kg | 10  | 10/25/2012 1:06:48 PM  |
| Nickel                                         | 11     | 2.5      |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 10/29/2012 2:48:38 PM  |
| Vanadium                                       | 20     | 12       |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| Zinc                                           | 20     | 12       |      | mg/Kg | 5   | 10/25/2012 1:04:23 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzoic acid                                   | ND     | 0.49     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/20/2012 10:34:36 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (13-14')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:05:00 PM

**Lab ID:** 1210653-006

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Chloroaniline                        | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Di-n-butyl phthalate                   | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Isophorone                             | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Methylphenol                         | ND     | 0.49 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-37 (13-14')

Project: SWMU NO.1

Collection Date: 10/10/2012 6:05:00 PM

Lab ID: 1210653-006

Matrix: SOIL

Received Date: 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Nitrobenzene                           | ND      | 0.49     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Pyridine                               | ND      | 0.49     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 10:34:36 PM |
| Surr: 2,4,6-Tribromophenol             | 81.2    | 21.3-145 |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| Surr: 2-Fluorobiphenyl                 | 95.7    | 20-131   |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| Surr: 2-Fluorophenol                   | 79.8    | 11.9-130 |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| Surr: 4-Terphenyl-d14                  | 78.5    | 25.1-149 |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| Surr: Nitrobenzene-d5                  | 97.8    | 25.6-137 |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| Surr: Phenol-d5                        | 92.6    | 20.3-132 |      | %REC  | 1  | 10/20/2012 10:34:36 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00157 | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Toluene                                | 0.00127 | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Ethylbenzene                           | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Xylenes, Total                         | ND      | 0.00168  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Methyl tert-butyl ether (MTBE)         | 0.00477 | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Naphthalene                            | ND      | 0.00168  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00336  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00336  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Acetone                                | 0.0148  | 0.00840  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Bromobenzene                           | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Bromodichloromethane                   | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Bromoform                              | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Bromomethane                           | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| 2-Butanone                             | ND      | 0.00840  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Carbon tetrachloride                   | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Chlorobenzene                          | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |
| Chloroethane                           | ND      | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM  |

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (13-14')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:05:00 PM

**Lab ID:** 1210653-006

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Chloromethane                          | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 2-Chlorotoluene                        | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Carbon disulfide                       | ND     | 0.00840  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 4-Chlorotoluene                        | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| cis-1,2-DCE                            | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Dibromochloromethane                   | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Dibromomethane                         | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Dichlorodifluoromethane                | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1-Dichloroethane                     | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1-Dichloroethene                     | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,2-Dichloropropane                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,3-Dichloropropane                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 2,2-Dichloropropane                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1-Dichloropropene                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Hexachlorobutadiene                    | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Isopropylbenzene                       | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 4-Isopropyltoluene                     | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Methylene chloride                     | ND     | 0.00252  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| n-Butylbenzene                         | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 2-Hexanone                             | ND     | 0.00840  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| n-Propylbenzene                        | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| sec-Butylbenzene                       | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Styrene                                | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00840  |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| tert-Butylbenzene                      | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| trans-1,2-DCE                          | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Trichloroethene (TCE)                  | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Trichlorofluoromethane                 | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (13-14')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:05:00 PM

**Lab ID:** 1210653-006

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Vinyl chloride                         | ND     | 0.000840 |      | mg/Kg | 1  | 10/12/2012 3:19:36 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.7   | 70-130   |      | %REC  | 1  | 10/12/2012 3:19:36 PM |
| Surr: 4-Bromofluorobenzene             | 91.8   | 70-130   |      | %REC  | 1  | 10/12/2012 3:19:36 PM |
| Surr: Dibromofluoromethane             | 92.8   | 70-130   |      | %REC  | 1  | 10/12/2012 3:19:36 PM |
| Surr: Toluene-d8                       | 88.4   | 70-130   |      | %REC  | 1  | 10/12/2012 3:19:36 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (17-18')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:20:00 PM

**Lab ID:** 1210653-007

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF   | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|------|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |      | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.8      |      | mg/Kg | 1    | 10/13/2012 5:06:26 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1    | 10/13/2012 5:06:26 PM  |
| Surr: DNOP                                     | 94.9   | 77.6-140 |      | %REC  | 1    | 10/13/2012 5:06:26 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |      | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1    | 10/19/2012 7:06:58 PM  |
| Surr: BFB                                      | 89.2   | 84-116   |      | %REC  | 1    | 10/19/2012 7:06:58 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |      | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1    | 10/16/2012 5:57:11 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |      | Analyst: JLF           |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Barium                                         | 870    | 5.0      |      | mg/Kg | 50   | 10/25/2012 1:22:36 PM  |
| Beryllium                                      | 1.0    | 0.75     |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Chromium                                       | 13     | 1.5      |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Cobalt                                         | 6.2    | 1.5      |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Iron                                           | 24000  | 1000     |      | mg/Kg | 1000 | 11/2/2012 6:48:43 AM   |
| Lead                                           | 5.0    | 1.2      |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Manganese                                      | 1400   | 5.0      |      | mg/Kg | 50   | 10/25/2012 1:22:36 PM  |
| Nickel                                         | 12     | 2.5      |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5    | 10/29/2012 3:03:53 PM  |
| Vanadium                                       | 16     | 12       |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| Zinc                                           | 21     | 12       |      | mg/Kg | 5    | 10/25/2012 1:20:11 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |      | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1    | 10/20/2012 11:03:55 PM |

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (17-18')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:20:00 PM

**Lab ID:** 1210653-007

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (17-18')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:20:00 PM

**Lab ID:** 1210653-007

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/20/2012 11:03:55 PM |
| Surr: 2,4,6-Tribromophenol             | 76.4    | 21.3-145 |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| Surr: 2-Fluorobiphenyl                 | 87.2    | 20-131   |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| Surr: 2-Fluorophenol                   | 76.7    | 11.9-130 |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| Surr: 4-Terphenyl-d14                  | 73.6    | 25.1-149 |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| Surr: Nitrobenzene-d5                  | 89.0    | 25.6-137 |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| Surr: Phenol-d5                        | 80.7    | 20.3-132 |      | %REC  | 1  | 10/20/2012 11:03:55 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.0106  | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Toluene                                | 0.00740 | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Ethylbenzene                           | 0.00187 | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Xylenes, Total                         | 0.00597 | 0.00161  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 1,2,4-Trimethylbenzene                 | 0.00196 | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 1,3,5-Trimethylbenzene                 | 0.00122 | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Naphthalene                            | ND      | 0.00161  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00322  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00322  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Acetone                                | 0.0127  | 0.00806  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Bromobenzene                           | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Bromodichloromethane                   | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Bromoform                              | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Bromomethane                           | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| 2-Butanone                             | ND      | 0.00806  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Carbon tetrachloride                   | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Chlorobenzene                          | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |
| Chloroethane                           | ND      | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (17-18')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:20:00 PM

**Lab ID:** 1210653-007

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Chloromethane                          | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 2-Chlorotoluene                        | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Carbon disulfide                       | ND     | 0.00806  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 4-Chlorotoluene                        | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| cis-1,2-DCE                            | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Dibromochloromethane                   | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Dibromomethane                         | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Dichlorodifluoromethane                | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1-Dichloroethane                     | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1-Dichloroethene                     | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,2-Dichloropropane                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,3-Dichloropropane                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 2,2-Dichloropropane                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1-Dichloropropene                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Hexachlorobutadiene                    | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Isopropylbenzene                       | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 4-Isopropyltoluene                     | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Methylene chloride                     | ND     | 0.00242  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| n-Butylbenzene                         | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 2-Hexanone                             | ND     | 0.00806  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| n-Propylbenzene                        | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| sec-Butylbenzene                       | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Styrene                                | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00806  |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| tert-Butylbenzene                      | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| trans-1,2-DCE                          | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Trichloroethene (TCE)                  | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Trichlorofluoromethane                 | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |

**Qualifiers:**

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- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210653

Date Reported: 11/15/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 (17-18')

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:20:00 PM

**Lab ID:** 1210653-007

**Matrix:** SOIL

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Vinyl chloride                         | ND     | 0.000806 |      | mg/Kg | 1  | 10/12/2012 3:50:25 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.2   | 70-130   |      | %REC  | 1  | 10/12/2012 3:50:25 PM |
| Surr: 4-Bromofluorobenzene             | 90.4   | 70-130   |      | %REC  | 1  | 10/12/2012 3:50:25 PM |
| Surr: Dibromofluoromethane             | 104    | 70-130   |      | %REC  | 1  | 10/12/2012 3:50:25 PM |
| Surr: Toluene-d8                       | 92.0   | 70-130   |      | %REC  | 1  | 10/12/2012 3:50:25 PM |

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017006  
**Project Name:** 1210653

## Analytical Results Report

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-001                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-001D / SWMU 1-37 (0-0.5) |                        |            | <b>Sampling Time</b>      | 5:00 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 3.2    | Percent |     | 10/26/2012    | CRW     | %moisture |           |

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-002                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-002D / SWMU 1-37 (1.5-2) |                        |            | <b>Sampling Time</b>      | 5:15 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 10.9   | Percent |     | 10/26/2012    | CRW     | %moisture |           |

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-003                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-003D / SWMU 1-37 (8-8.5) |                        |            | <b>Sampling Time</b>      | 5:30 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 14.8   | Percent |     | 10/26/2012    | CRW     | %moisture |           |

# Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017006  
**Project Name:** 1210653

## Analytical Results Report

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-004                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-004D / SWMU 1-37 (8.5-9) |                        |            | <b>Sampling Time</b>      | 5:40 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 19.9   | Percent |     | 10/26/2012    | CRW     | %moisture |           |

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-005                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-005D / SWMU 1-37 (12-13) |                        |            | <b>Sampling Time</b>      | 5:55 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 24.2   | Percent |     | 10/26/2012    | CRW     | %moisture |           |

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-006                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-006D / SWMU 1-37 (13-14) |                        |            | <b>Sampling Time</b>      | 6:05 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 17.4   | Percent |     | 10/26/2012    | CRW     | %moisture |           |

# Anatek Labs, Inc.

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

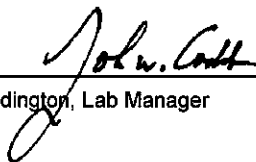
**Batch #:** 121017006  
**Project Name:** 1210653

## Analytical Results Report

|                         |                                  |                        |            |                           |                    |
|-------------------------|----------------------------------|------------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121017006-007                    | <b>Sampling Date</b>   | 10/10/2012 | <b>Date/Time Received</b> | 10/16/2012 1:11 PM |
| <b>Client Sample ID</b> | 1210653-007D / SWMU 1-37 (17-18) |                        |            | <b>Sampling Time</b>      | 6:20 PM            |
| <b>Matrix</b>           | Soil                             | <b>Sample Location</b> |            |                           |                    |
| <b>Comments</b>         |                                  |                        |            |                           |                    |

| Parameter | Result | Units   | PQL | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-----|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.3 | 10/24/2012    | CRW     | EPA 335.4 |           |
| %moisture | 14.4   | Percent |     | 10/30/2012    | CRW     | %moisture |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4283    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4283            |           |             | RunNo: 6213                                       |          |              |      |          |      |
| Prep Date:                     | 10/12/2012 | Analysis Date: 10/13/2012 |           |             | SeqNo: 179030                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 9.1        |                           | 10.00     |             | 91.2                                              | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4283   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4283            |             | RunNo: 6213                                       |          |              |      |          |      |
| Prep Date:                  | 10/12/2012 |     | Analysis Date: 10/13/2012 |             | SeqNo: 179032                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 39         | 10  | 50.00                     | 0           | 78.6                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.1        |     | 5.000                     |             | 81.4                                              | 77.6     | 140          |      |          |      |

|                             |                    |                           |           |             |                                                   |          |              |      |          |      |
|-----------------------------|--------------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210653-001CMS     | SampType: MS              |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 1-37 (0-0.5') | Batch ID: 4283            |           |             | RunNo: 6226                                       |          |              |      |          |      |
| Prep Date:                  | 10/12/2012         | Analysis Date: 10/15/2012 |           |             | SeqNo: 179425                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result             | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 100                | 10                        | 51.18     | 103.8       | -4.05                                             | 57.2     | 146          |      |          | S    |
| Surr: DNOP                  | 3.9                |                           | 5.118     |             | 75.7                                              | 77.6     | 140          |      |          | S    |

|                             |                    |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|--------------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210653-001CMSD    |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 1-37 (0-0.5') |     | Batch ID: 4283            |             | RunNo: 6226                                       |          |              |      |          |      |
| Prep Date:                  | 10/12/2012         |     | Analysis Date: 10/15/2012 |             | SeqNo: 179426                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 120                | 10  | 49.80                     | 103.8       | 32.2                                              | 57.2     | 146          | 16.4 | 24.5     | S    |
| Surr: DNOP                  | 4.2                |     | 4.980                     |             | 84.5                                              | 77.6     | 140          | 0    | 0        |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4297    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4297            |             | RunNo: 6226                                       |          |             |      |          |      |
| Prep Date: | 10/15/2012 |     | Analysis Date: 10/15/2012 |             | SeqNo: 179526                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 9.1        |     | 10.00                     |             | 90.9                                              | 77.6     | 140         |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4297   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4297            |             | RunNo: 6226                                       |          |             |      |          |      |
| Prep Date: | 10/15/2012 |     | Analysis Date: 10/15/2012 |             | SeqNo: 179527                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.5        |     | 5.000                     |             | 89.5                                              | 77.6     | 140         |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |        |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 5ML RB |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS    |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |        |     | Analysis Date: 10/12/2012 |             | SeqNo: 178737                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 1000   |     | 1000                      |             | 103                                        | 84       | 116          |      |          |      |

|                               |               |                           |           |             |                                            |          |              |      |          |      |
|-------------------------------|---------------|---------------------------|-----------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS | SampType: LCS             |           |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS          | Batch ID: R6205           |           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |               | Analysis Date: 10/12/2012 |           |             | SeqNo: 178738                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result        | PQL                       | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 28            | 5.0                       | 25.00     | 0           | 114                                        | 74       | 117          |      |          |      |
| Surr: BFB                     | 1100          |                           | 1000      |             | 111                                        | 84       | 116          |      |          |      |

|                               |                |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210582-004BMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |                |     | Analysis Date: 10/12/2012 |             | SeqNo: 178751                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 7.2            | 5.0 | 18.26                     | 0           | 39.3                                       | 70       | 130          |      |          | S    |
| Surr: BFB                     | 780            |     | 730.5                     |             | 107                                        | 84       | 116          |      |          |      |

|                               |                 |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210582-004BMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |                 |     | Analysis Date: 10/12/2012 |             | SeqNo: 178752                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 16              | 5.0 | 18.26                     | 0           | 87.4                                       | 70       | 130          | 76.0 | 22.1     | R    |
| Surr: BFB                     | 800             |     | 730.5                     |             | 109                                        | 84       | 116          | 0    | 0        |      |

|                               |        |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | B27    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS    |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |        |     | Analysis Date: 10/12/2012 |             | SeqNo: 178761                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 1100   |     | 1000                      |             | 105                                        | 84       | 116          |      |          |      |

|                               |                  |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS-II |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS             |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |                  |     | Analysis Date: 10/13/2012 |             | SeqNo: 178762                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result           | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 28               | 5.0 | 25.00                     | 0           | 110                                        | 74       | 117          |      |          |      |
| Surr: BFB                     | 1100             |     | 1000                      |             | 112                                        | 84       | 116          |      |          |      |

### Qualifiers:

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- J Analyte detected below quantitation limits
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.1

|                               |                    |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210653-005BMS     |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | SWMU 1-37 (12-13') |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |                    |     | Analysis Date: 10/12/2012 |             | SeqNo: 178768                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 26                 | 5.0 | 25.00                     | 0           | 102                                        | 70       | 130          |      |          |      |
| Surr: BFB                     | 1100               |     | 1000                      |             | 113                                        | 84       | 116          |      |          |      |

|                               |                    |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210653-005BMSD    |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | SWMU 1-37 (12-13') |     | Batch ID: R6205           |             | RunNo: 6205                                |          |              |      |          |      |
| Prep Date:                    |                    |     | Analysis Date: 10/12/2012 |             | SeqNo: 178769                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 28                 | 5.0 | 25.00                     | 0           | 111                                        | 70       | 130          | 7.96 | 22.1     |      |
| Surr: BFB                     | 1200               |     | 1000                      |             | 117                                        | 84       | 116          | 0    | 0        | S    |

|                               |            |                           |           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|---------------------------|-----------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4282    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        | Batch ID: 4282            |           |             | RunNo: 6371                                |          |              |      |          |      |
| Prep Date:                    | 10/12/2012 | Analysis Date: 10/19/2012 |           |             | SeqNo: 183155                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0                       |           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 910        |                           | 1000      |             | 91.4                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4282   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4282            |             | RunNo: 6371                                |          |              |      |          |      |
| Prep Date:                    | 10/12/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 183156                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23         | 5.0 | 25.00                     | 0           | 93.8                                       | 74       | 117          |      |          |      |
| Surr: BFB                     | 960        |     | 1000                      |             | 96.4                                       | 84       | 116          |      |          |      |

|                               |                |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210668-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: 4282            |             | RunNo: 6371                                |          |              |      |          |      |
| Prep Date:                    | 10/12/2012     |     | Analysis Date: 10/19/2012 |             | SeqNo: 183162                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND             | 24  | 23.63                     | 6.612       | 71.0                                       | 70       | 130          |      |          |      |
| Surr: BFB                     | 4500           |     | 4726                      |             | 96.1                                       | 84       | 116          |      |          |      |

|                               |                 |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210668-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: 4282            |             | RunNo: 6371                                |          |              |      |          |      |
| Prep Date:                    | 10/12/2012      |     | Analysis Date: 10/19/2012 |             | SeqNo: 183163                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND              | 24  | 23.61                     | 6.612       | 65.0                                       | 70       | 130          | 0    | 22.1     | S    |
| Surr: BFB                     | 4300            |     | 4721                      |             | 90.4                                       | 84       | 116          | 0    | 0        |      |

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- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |         |                           |             |      |                                           |           |              |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                      | mb-4280    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4280            |             |      | RunNo: 6223                               |           |              |          |      |
| Prep Date:                     | 10/12/2012 |         | Analysis Date: 10/12/2012 |             |      | SeqNo: 179318                             |           | Units: mg/Kg |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |      |                                           |           |              |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |      |                                           |           |              |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |      |                                           |           |              |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |      |                                           |           |              |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4280    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4280            |             | RunNo: 6223                               |          |              |      |          |      |
| Prep Date:                  | 10/12/2012 |         | Analysis Date: 10/12/2012 |             | SeqNo: 179318                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45.9       |         | 50.00                     |             | 91.9                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 46.6       |         | 50.00                     |             | 93.3                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 49.4       |         | 50.00                     |             | 98.8                                      | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 46.4       |         | 50.00                     |             | 92.9                                      | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4280   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4280            |             | RunNo: 6223                               |          |              |      |          |      |
| Prep Date:                  | 10/12/2012 |      | Analysis Date: 10/12/2012 |             | SeqNo: 180404                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 12.3       | 1.00 | 12.50                     | 0           | 98.3                                      | 60       | 140          |      |          |      |
| Toluene                     | 11.6       | 1.00 | 12.50                     | 0           | 93.2                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 12.4       | 1.00 | 12.50                     | 0           | 99.5                                      | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 13.9       | 1.00 | 12.50                     | 0           | 111                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 10.5       | 1.00 | 12.50                     | 0           | 84.3                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.0       |      | 50.00                     |             | 92.0                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 46.6       |      | 50.00                     |             | 93.2                                      | 70       | 130          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |      |                                           |           |              |          |      |
|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                  | lcs-4280   |     | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4280            |             |      | RunNo: 6223                               |           |              |          |      |
| Prep Date:                 | 10/12/2012 |     | Analysis Date: 10/12/2012 |             |      | SeqNo: 180404                             |           | Units: mg/Kg |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 46.9       |     | 50.00                     |             | 93.9 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8           | 42.8       |     | 50.00                     |             | 85.7 | 70                                        | 130       |              |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |      |                                  |             |                                                  |          |                     |      |          |      |
|-----------------------------|-------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                   | <b>mb-4304</b>    |      | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                  | <b>PBS</b>        |      | Batch ID: <b>4304</b>            |             | RunNo: <b>6287</b>                               |          |                     |      |          |      |
| Prep Date:                  | <b>10/15/2012</b> |      | Analysis Date: <b>10/16/2012</b> |             | SeqNo: <b>181172</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                     | Result            | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Acenaphthylene              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Aniline                     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Anthracene                  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Azobenzene                  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benz(a)anthracene           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(a)pyrene              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(b)fluoranthene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(g,h,i)perylene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(k)fluoranthene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzoic acid                | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Benzyl alcohol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroethoxy)methane  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroethyl)ether     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroisopropyl)ether | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Bromophenyl phenyl ether  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Butyl benzyl phthalate      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Carbazole                   | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloroaniline             | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chloronaphthalene         | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chlorophenol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Chrysene                    | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-butyl phthalate        | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-octyl phthalate        | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenzofuran                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| Diethyl phthalate           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dimethyl phthalate          | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dichlorophenol          | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dimethylphenol          | ND                | 0.30 |                                  |             |                                                  |          |                     |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrophenol           | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |

### Qualifiers:

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P Sample pH greater than 2

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                |                   |      |           |                                        |      |                     |      |
|----------------------------|-------------------|------|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID                  | <b>mb-4304</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID:      | <b>4304</b>       |      | RunNo:    | <b>6287</b>                            |      |                     |      |
| Prep Date:                 | <b>10/15/2012</b> |      | Analysis Date: | <b>10/16/2012</b> |      | SeqNo:    | <b>181172</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte                    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |
| Fluoranthene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Fluorene                   | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobenzene          | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobutadiene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachloroethane           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Isophorone                 | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylphenol             | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 3+4-Methylphenol           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Naphthalene                | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 3-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitroaniline             | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Nitrobenzene               | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitrophenol              | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitrophenol              | ND                | 0.25 |                |                   |      |           |                                        |      |                     |      |
| Pentachlorophenol          | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Phenanthrene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Phenol                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyrene                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyridine                   | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Surr: 2,4,6-Tribromophenol | 3.3               |      | 3.330          |                   | 99.2 | 21.3      | 145                                    |      |                     |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |      | 1.670          |                   | 87.3 | 20        | 131                                    |      |                     |      |
| Surr: 2-Fluorophenol       | 2.9               |      | 3.330          |                   | 86.6 | 11.9      | 130                                    |      |                     |      |
| Surr: 4-Terphenyl-d14      | 1.3               |      | 1.670          |                   | 77.7 | 25.1      | 149                                    |      |                     |      |
| Surr: Nitrobenzene-d5      | 1.4               |      | 1.670          |                   | 86.0 | 25.6      | 137                                    |      |                     |      |
| Surr: Phenol-d5            | 2.8               |      | 3.330          |                   | 85.1 | 20.3      | 132                                    |      |                     |      |

|            |                   |     |                |                   |      |           |                                        |      |                     |      |
|------------|-------------------|-----|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID  | <b>lcs-4304</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |     | Batch ID:      | <b>4304</b>       |      | RunNo:    | <b>6287</b>                            |      |                     |      |
| Prep Date: | <b>10/15/2012</b> |     | Analysis Date: | <b>10/16/2012</b> |      | SeqNo:    | <b>181173</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |

### Qualifiers:

|                                              |                                                      |
|----------------------------------------------|------------------------------------------------------|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4304   |      | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       |      | Batch ID: 4304            |             | RunNo: 6287                               |          |              |      |          |      |
| Prep Date:                 | 10/15/2012 |      | Analysis Date: 10/16/2012 |             | SeqNo: 181173                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.5        | 0.20 | 1.670                     | 0           | 87.0                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.8        | 0.50 | 3.330                     | 0           | 83.9                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.3        | 0.20 | 3.330                     | 0           | 70.1                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.2        | 0.20 | 1.670                     | 0           | 70.8                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.8        | 0.50 | 1.670                     | 0           | 107                                       | 44.4     | 104          |      |          | S    |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20 | 1.670                     | 0           | 84.8                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.9        | 0.25 | 3.330                     | 0           | 87.7                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40 | 3.330                     | 0           | 62.0                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5        | 0.20 | 3.330                     | 0           | 76.4                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.2        | 0.20 | 1.670                     | 0           | 71.1                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.3        | 0.20 | 1.670                     | 0           | 79.0                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.3        |      | 3.330                     |             | 98.8                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5        |      | 1.670                     |             | 89.8                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.5        |      | 3.330                     |             | 75.9                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.2        |      | 1.670                     |             | 74.2                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.5        |      | 1.670                     |             | 90.6                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 2.8        |      | 3.330                     |             | 84.9                                      | 20.3     | 132          |      |          |      |

|                            |            |     |                           |             |      |                                           |           |             |          |      |
|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|-------------|----------|------|
| Sample ID                  | mb-4337    |     | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |             |          |      |
| Client ID:                 | PBS        |     | Batch ID: 4337            |             |      | RunNo: 6376                               |           |             |          |      |
| Prep Date:                 | 10/16/2012 |     | Analysis Date: 10/21/2012 |             |      | SeqNo: 183352                             |           | Units: %REC |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD        | RPDLimit | Qual |
| Surr: 2,4,6-Tribromophenol | 3.2        |     | 3.330                     |             | 95.0 | 21.3                                      | 145       |             |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5        |     | 1.670                     |             | 88.8 | 20                                        | 131       |             |          |      |
| Surr: 2-Fluorophenol       | 2.5        |     | 3.330                     |             | 75.7 | 11.9                                      | 130       |             |          |      |
| Surr: 4-Terphenyl-d14      | 1.3        |     | 1.670                     |             | 76.8 | 25.1                                      | 149       |             |          |      |
| Surr: Nitrobenzene-d5      | 1.4        |     | 1.670                     |             | 84.4 | 25.6                                      | 137       |             |          |      |
| Surr: Phenol-d5            | 2.6        |     | 3.330                     |             | 78.4 | 20.3                                      | 132       |             |          |      |

|                            |            |     |                           |             |                                           |          |             |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | Ics-4337   |     | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |             |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4337            |             | RunNo: 6376                               |          |             |      |          |      |
| Prep Date:                 | 10/16/2012 |     | Analysis Date: 10/21/2012 |             | SeqNo: 183353                             |          | Units: %REC |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: 2,4,6-Tribromophenol | 3.4        |     | 3.330                     |             | 102                                       | 21.3     | 145         |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5        |     | 1.670                     |             | 89.9                                      | 20       | 131         |      |          |      |
| Surr: 2-Fluorophenol       | 2.4        |     | 3.330                     |             | 71.3                                      | 11.9     | 130         |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.4        |     | 1.670                     |             | 85.9                                      | 25.1     | 149         |      |          |      |
| Surr: Nitrobenzene-d5      | 1.6        |     | 1.670                     |             | 93.1                                      | 25.6     | 137         |      |          |      |
| Surr: Phenol-d5            | 2.9        |     | 3.330                     |             | 86.8                                      | 20.3     | 132         |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                           |      |                                  |             |                                                  |          |                     |      |          |      |
|----------------------------|---------------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                  | <b>1210653-001CMS</b>     |      | SampType: <b>MS</b>              |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                 | <b>SWMU 1-37 (0-0.5')</b> |      | Batch ID: <b>4304</b>            |             | RunNo: <b>6376</b>                               |          |                     |      |          |      |
| Prep Date:                 | <b>10/15/2012</b>         |      | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183387</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result                    | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2                       | 0.40 | 1.664                            | 0           | 74.7                                             | 25.6     | 142                 |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6                       | 1.0  | 3.318                            | 0           | 78.7                                             | 63.7     | 100                 |      |          |      |
| 2-Chlorophenol             | 2.4                       | 0.40 | 3.318                            | 0           | 73.0                                             | 22.2     | 126                 |      |          |      |
| 1,4-Dichlorobenzene        | 1.1                       | 0.40 | 1.664                            | 0           | 69.0                                             | 12.4     | 115                 |      |          |      |
| 2,4-Dinitrotoluene         | 1.3                       | 1.0  | 1.664                            | 0           | 78.8                                             | 14.9     | 142                 |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4                       | 0.40 | 1.664                            | 0           | 81.4                                             | 13.9     | 136                 |      |          |      |
| 4-Nitrophenol              | 2.4                       | 0.50 | 3.318                            | 0           | 73.6                                             | 36.7     | 130                 |      |          |      |
| Pentachlorophenol          | 2.2                       | 0.80 | 3.318                            | 0           | 66.4                                             | 15.8     | 113                 |      |          |      |
| Phenol                     | 2.5                       | 0.40 | 3.318                            | 0           | 73.9                                             | 25.1     | 124                 |      |          |      |
| Pyrene                     | 1.5                       | 0.40 | 1.664                            | 0           | 88.1                                             | 35.8     | 124                 |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4                       | 0.40 | 1.664                            | 0           | 82.7                                             | 30       | 113                 |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.3                       |      | 3.318                            |             | 101                                              | 21.3     | 145                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6                       |      | 1.664                            |             | 94.0                                             | 20       | 131                 |      |          |      |
| Surr: 2-Fluorophenol       | 2.9                       |      | 3.318                            |             | 88.7                                             | 11.9     | 130                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5                       |      | 1.664                            |             | 91.7                                             | 25.1     | 149                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7                       |      | 1.664                            |             | 103                                              | 25.6     | 137                 |      |          |      |
| Surr: Phenol-d5            | 3.2                       |      | 3.318                            |             | 97.8                                             | 20.3     | 132                 |      |          |      |

|                            |                       |     |                                  |             |                                                  |          |                    |      |          |      |
|----------------------------|-----------------------|-----|----------------------------------|-------------|--------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>1210692-010CMS</b> |     | SampType: <b>MS</b>              |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                    |      |          |      |
| Client ID:                 | <b>BatchQC</b>        |     | Batch ID: <b>4337</b>            |             | RunNo: <b>6376</b>                               |          |                    |      |          |      |
| Prep Date:                 | <b>10/16/2012</b>     |     | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183388</b>                             |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result                | PQL | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: 2,4,6-Tribromophenol | 3.3                   |     | 3.350                            |             | 97.8                                             | 21.3     | 145                |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6                   |     | 1.680                            |             | 94.5                                             | 20       | 131                |      |          |      |
| Surr: 2-Fluorophenol       | 2.7                   |     | 3.350                            |             | 79.9                                             | 11.9     | 130                |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.4                   |     | 1.680                            |             | 83.3                                             | 25.1     | 149                |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7                   |     | 1.680                            |             | 104                                              | 25.6     | 137                |      |          |      |
| Surr: Phenol-d5            | 3.1                   |     | 3.350                            |             | 93.0                                             | 20.3     | 132                |      |          |      |

|                           |                           |      |                                  |             |                                                  |          |                     |       |          |      |
|---------------------------|---------------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|-------|----------|------|
| Sample ID                 | <b>1210653-001CMSD</b>    |      | SampType: <b>MSD</b>             |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |       |          |      |
| Client ID:                | <b>SWMU 1-37 (0-0.5')</b> |      | Batch ID: <b>4304</b>            |             | RunNo: <b>6376</b>                               |          |                     |       |          |      |
| Prep Date:                | <b>10/15/2012</b>         |      | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183389</b>                             |          | Units: <b>mg/Kg</b> |       |          |      |
| Analyte                   | Result                    | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD  | RPDLimit | Qual |
| Acenaphthene              | 1.3                       | 0.40 | 1.672                            | 0           | 75.2                                             | 25.6     | 142                 | 1.09  | 22       |      |
| 4-Chloro-3-methylphenol   | 2.4                       | 1.0  | 3.334                            | 0           | 73.0                                             | 63.7     | 100                 | 7.05  | 27.3     |      |
| 2-Chlorophenol            | 2.3                       | 0.40 | 3.334                            | 0           | 67.8                                             | 22.2     | 126                 | 6.86  | 26.3     |      |
| 1,4-Dichlorobenzene       | 1.0                       | 0.40 | 1.672                            | 0           | 61.9                                             | 12.4     | 115                 | 10.4  | 27.4     |      |
| 2,4-Dinitrotoluene        | 1.3                       | 1.0  | 1.672                            | 0           | 77.2                                             | 14.9     | 142                 | 1.50  | 27.4     |      |
| N-Nitrosodi-n-propylamine | 1.3                       | 0.40 | 1.672                            | 0           | 75.4                                             | 13.9     | 136                 | 7.14  | 22.6     |      |
| 4-Nitrophenol             | 2.4                       | 0.50 | 3.334                            | 0           | 73.4                                             | 36.7     | 130                 | 0.281 | 20       |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                    |                |            |             |           |                                 |           |        |          |      |  |
|----------------------------|--------------------|----------------|------------|-------------|-----------|---------------------------------|-----------|--------|----------|------|--|
| Sample ID                  | 1210653-001CMSD    | SampType:      | MSD        |             | TestCode: | EPA Method 8270C: Semivolatiles |           |        |          |      |  |
| Client ID:                 | SWMU 1-37 (0-0.5') | Batch ID:      | 4304       |             | RunNo:    | 6376                            |           |        |          |      |  |
| Prep Date:                 | 10/15/2012         | Analysis Date: | 10/21/2012 |             | SeqNo:    | 183389                          |           | Units: | mg/Kg    |      |  |
| Analyte                    | Result             | PQL            | SPK value  | SPK Ref Val | %REC      | LowLimit                        | HighLimit | %RPD   | RPDLimit | Qual |  |
| Pentachlorophenol          | 2.2                | 0.80           | 3.334      | 0           | 66.2      | 15.8                            | 113       | 0.258  | 27.1     |      |  |
| Phenol                     | 2.1                | 0.40           | 3.334      | 0           | 62.9      | 25.1                            | 124       | 15.6   | 32.2     |      |  |
| Pyrene                     | 1.3                | 0.40           | 1.672      | 0           | 79.2      | 35.8                            | 124       | 10.1   | 29.5     |      |  |
| 1,2,4-Trichlorobenzene     | 1.3                | 0.40           | 1.672      | 0           | 80.6      | 30                              | 113       | 2.14   | 27.8     |      |  |
| Surr: 2,4,6-Tribromophenol | 3.1                |                | 3.334      |             | 92.3      | 21.3                            | 145       | 0      | 0        |      |  |
| Surr: 2-Fluorobiphenyl     | 1.5                |                | 1.672      |             | 87.3      | 20                              | 131       | 0      | 0        |      |  |
| Surr: 2-Fluorophenol       | 2.8                |                | 3.334      |             | 83.7      | 11.9                            | 130       | 0      | 0        |      |  |
| Surr: 4-Terphenyl-d14      | 1.4                |                | 1.672      |             | 84.8      | 25.1                            | 149       | 0      | 0        |      |  |
| Surr: Nitrobenzene-d5      | 1.5                |                | 1.672      |             | 91.5      | 25.6                            | 137       | 0      | 0        |      |  |
| Surr: Phenol-d5            | 3.0                |                | 3.334      |             | 88.5      | 20.3                            | 132       | 0      | 0        |      |  |

|                            |                 |                |            |             |           |                                 |           |             |          |      |  |
|----------------------------|-----------------|----------------|------------|-------------|-----------|---------------------------------|-----------|-------------|----------|------|--|
| Sample ID                  | 1210692-010CMSD | SampType:      | MSD        |             | TestCode: | EPA Method 8270C: Semivolatiles |           |             |          |      |  |
| Client ID:                 | BatchQC         | Batch ID:      | 4337       |             | RunNo:    | 6376                            |           |             |          |      |  |
| Prep Date:                 | 10/16/2012      | Analysis Date: | 10/21/2012 |             | SeqNo:    | 183390                          |           | Units: %REC |          |      |  |
| Analyte                    | Result          | PQL            | SPK value  | SPK Ref Val | %REC      | LowLimit                        | HighLimit | %RPD        | RPDLimit | Qual |  |
| Surr: 2,4,6-Tribromophenol | 3.2             |                | 3.332      |             | 97.1      | 21.3                            | 145       | 0           | 0        |      |  |
| Surr: 2-Fluorobiphenyl     | 1.6             |                | 1.671      |             | 98.0      | 20                              | 131       | 0           | 0        |      |  |
| Surr: 2-Fluorophenol       | 2.6             |                | 3.332      |             | 76.9      | 11.9                            | 130       | 0           | 0        |      |  |
| Surr: 4-Terphenyl-d14      | 1.3             |                | 1.671      |             | 78.6      | 25.1                            | 149       | 0           | 0        |      |  |
| Surr: Nitrobenzene-d5      | 1.7             |                | 1.671      |             | 101       | 25.6                            | 137       | 0           | 0        |      |  |
| Surr: Phenol-d5            | 3.0             |                | 3.332      |             | 89.3      | 20.3                            | 132       | 0           | 0        |      |  |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4317    |       | SampType: mblk            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4317            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012 |       | Analysis Date: 10/16/2012 |             | SeqNo: 180708                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4317   |       | SampType: lcs             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4317            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012 |       | Analysis Date: 10/16/2012 |             | SeqNo: 180709                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.16       | 0.033 | 0.1667                    | 0           | 98.7                               | 80       | 120          |      |          |      |

|            |                |       |                           |             |                                    |          |              |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210656-004CMS |       | SampType: ms              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4317            |             | RunNo: 6270                        |          |              |      |          |      |
| Prep Date: | 10/15/2012     |       | Analysis Date: 10/16/2012 |             | SeqNo: 180735                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.16           | 0.033 | 0.1654                    | 0           | 96.4                               | 75       | 125          |      |          |      |

|            |                 |       |                |             |      |          |           |                          |              |      |  |
|------------|-----------------|-------|----------------|-------------|------|----------|-----------|--------------------------|--------------|------|--|
| Sample ID  | 1210656-004CMSD |       |                | SampType:   | msd  |          | TestCode: | EPA Method 7471: Mercury |              |      |  |
| Client ID: | BatchQC         |       |                | Batch ID:   | 4317 |          | RunNo:    | 6270                     |              |      |  |
| Prep Date: | 10/15/2012      |       | Analysis Date: | 10/16/2012  |      | SeqNo:   | 180736    |                          | Units: mg/kg |      |  |
| Analyte    | Result          | PQL   | SPK value      | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD                     | RPDLimit     | Qual |  |
| Mercury    | 0.16            | 0.033 | 0.1655         | 0           | 96.8 | 75       | 125       | 0.493                    | 20           |      |  |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4440    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186820                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Silver    | 0.64   | 0.25 |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4440   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186821                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 25     | 2.5  | 25.00     | 0.6605      | 96.6 | 80       | 120       |      |          |      |
| Arsenic   | 25     | 2.5  | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Barium    | 25     | 0.10 | 25.00     | 0           | 98.6 | 80       | 120       |      |          |      |
| Beryllium | 26     | 0.15 | 25.00     | 0           | 103  | 80       | 120       |      |          |      |
| Cadmium   | 25     | 0.10 | 25.00     | 0           | 98.8 | 80       | 120       |      |          |      |
| Chromium  | 25     | 0.30 | 25.00     | 0           | 99.0 | 80       | 120       |      |          |      |
| Cobalt    | 24     | 0.30 | 25.00     | 0           | 95.6 | 80       | 120       |      |          |      |
| Lead      | 24     | 0.25 | 25.00     | 0           | 96.6 | 80       | 120       |      |          |      |
| Manganese | 24     | 0.10 | 25.00     | 0.05400     | 96.6 | 80       | 120       |      |          |      |
| Nickel    | 24     | 0.50 | 25.00     | 0           | 94.2 | 80       | 120       |      |          |      |
| Selenium  | 24     | 2.5  | 25.00     | 0           | 94.1 | 80       | 120       |      |          |      |
| Silver    | 6.0    | 0.25 | 5.000     | 0.6425      | 106  | 80       | 120       |      |          | B    |
| Vanadium  | 25     | 2.5  | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Zinc      | 24     | 2.5  | 25.00     | 0           | 97.3 | 80       | 120       |      |          |      |

|            |                |                |            |           |                               |        |       |  |  |  |
|------------|----------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:    | 186845                        | Units: | mg/Kg |  |  |  |

| Analyte | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Arsenic | 23     | 2.5  | 24.93     | 2.265       | 83.0 | 75       | 125       |      |          |      |
| Cadmium | 20     | 0.10 | 24.93     | 0.03505     | 80.0 | 75       | 125       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:      | 6493                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:      | 186845                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chromium   | 25             | 0.30           | 24.93      | 3.270       | 86.6                          | 75       | 125       |      |          |      |
| Selenium   | 17             | 2.5            | 24.93      | 0           | 68.1                          | 75       | 125       |      |          | S    |

|            |                 |                |            |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4440       | RunNo:      | 6493                          |          |           |      |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/25/2012 | SeqNo:      | 186849                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 23              | 2.5            | 24.96      | 2.265       | 81.7                          | 75       | 125       | 1.34 | 20       |      |
| Cadmium    | 19              | 0.10           | 24.96      | 0.03505     | 77.2                          | 75       | 125       | 3.39 | 20       |      |
| Chromium   | 24              | 0.30           | 24.96      | 3.270       | 84.2                          | 75       | 125       | 2.39 | 20       |      |
| Selenium   | 15              | 2.5            | 24.96      | 0           | 61.4                          | 75       | 125       | 10.1 | 20       | S    |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4440    | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188992                        | Units:   | mg/L      |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | ND         | 0.25           |            |             |                               |          |           |      |          |      |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4440   | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188993                        | Units:   | mg/L      |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 5.7        | 0.25           | 5.000      | 0           | 113                           | 80       | 120       |      |          |      |

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/29/2012 | SeqNo:      | 189043                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.3            | 0.25           | 4.987      | 0           | 85.5                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/29/2012 | SeqNo:      | 189044                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.0             | 0.25           | 4.992      | 0           | 80.9                          | 75       | 125       | 5.39 | 20       |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210653

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |     |                          |             |                                         |          |              |      |          |      |
|------------|------------|-----|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4440    |     | SampType: MBLK           |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4440           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |     | Analysis Date: 11/2/2012 |             | SeqNo: 192431                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | ND         | 1.0 |                          |             |                                         |          |              |      |          |      |

|            |            |     |                          |             |                                         |          |              |      |          |      |
|------------|------------|-----|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4440   |     | SampType: LCS            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4440           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |     | Analysis Date: 11/2/2012 |             | SeqNo: 192432                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | 27         | 1.0 | 25.00                    | 0           | 109                                     | 80       | 120          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1210653

Received by/date: *mg* 10/12/12

Logged By: Michelle Garcia 10/12/2012 8:00:00 AM

*Michelle Garcia*

Completed By: Michelle Garcia 10/12/2012 9:20:33 AM

*Michelle Garcia*

Reviewed By: *TO* 10/12/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No ☐ Adjusted?
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0                     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: WESTERN REFINING SW INC  
GALLUP REFINERY  
 Mailing Address: ROUTE 3 BOX 7  
GALLUP, NM 87301  
 Phone #: 505-722-0217  
 email or Fax#: SCOTT CROUCH - RPS

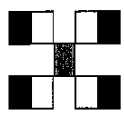
QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation  
☐ NELAP ☐ Other  
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush  
 Project Name: SWMU No. 1  
 Project #:                       
 Project Manager: SCOTT CROUCH - RPS  
 Sampler: TRACY PAYNE - RPS

On Ice: ☒ Yes ☐ No  
 Sample Temperature: 1.0  
 Container Type and #  
 Preservative Type  
 HEAL No. 1210153

| Date     | Time | Matrix | Sample Request ID  | Container Type and # | Preservative Type | HEAL No. |
|----------|------|--------|--------------------|----------------------|-------------------|----------|
| 10/10/12 | 1700 | Soil   | SWMU 1-37 (0-0.5') | 2 VIALS              | SOBI              | -001     |
|          |      |        |                    | 2 VIALS              | MEOH              |          |
|          |      |        |                    | 3 JARS               | -                 |          |
| 1715     |      |        | SWMU 1-37 (1.5-2') | 2 VIALS              | SOBI              | -002     |
|          |      |        |                    | 2 VIALS              | MEOH              |          |
|          |      |        |                    | 2 JARS               | -                 |          |
| 1730     |      |        | SWMU 1-37 (8-8.5') | 2 VIALS              | SOBI              | -003     |
|          |      |        |                    | 2 VIALS              | MEOH              |          |
|          |      |        |                    | 3 JARS               | -                 |          |
| 1740     |      |        | SWMU 1-37 (8.5-9') | 2 VIALS              | SOBI              | -004     |
|          |      |        |                    | 2 VIALS              | MEOH              |          |
|          |      |        |                    | 2 JARS               | -                 |          |

Date: 10/11/12 Time: 0735 Relinquished by:                       
 Date: 10/11/12 Time: 0800 Relinquished by: Michael Payne



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

| Analysis Request           |                              |                             |                    |                    |                           |               |                                                                                        |                              |                       |
|----------------------------|------------------------------|-----------------------------|--------------------|--------------------|---------------------------|---------------|----------------------------------------------------------------------------------------|------------------------------|-----------------------|
| BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) + TPH GRO |
|                            |                              |                             |                    |                    |                           |               |                                                                                        |                              | 8270 (Semi-VOA)       |
|                            |                              |                             |                    |                    |                           |               |                                                                                        |                              | TPH MRO & DRO         |
|                            |                              |                             |                    |                    |                           |               |                                                                                        |                              | METALS                |
|                            |                              |                             |                    |                    |                           |               |                                                                                        |                              | Air Bubbles (Y or N)  |

Remarks:

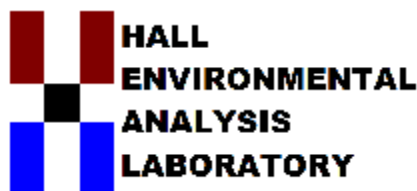
ZOF 2

Date \_\_\_\_\_ Time \_\_\_\_\_

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

| Rpt                                 | T | Analyte              | Units | Synonym | MDL     | LOD | LOQ |
|-------------------------------------|---|----------------------|-------|---------|---------|-----|-----|
| <input type="checkbox"/>            | A | Aluminum             | mg/Kg |         | 0.4481  | 0   |     |
| <input checked="" type="checkbox"/> | A | Antimony             | mg/Kg |         | 0.629   | 0   |     |
| <input checked="" type="checkbox"/> | A | Arsenic              | mg/Kg |         | 0.6263  | 0   |     |
| <input checked="" type="checkbox"/> | A | Barium               | mg/Kg |         | 0.0609  | 0   |     |
| <input checked="" type="checkbox"/> | A | Beryllium            | mg/Kg |         | 0.0093  | 0   |     |
| <input type="checkbox"/>            | A | Boron                | mg/Kg |         | 0.0826  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cadmium              | mg/Kg |         | 0.0271  | 0   |     |
| <input type="checkbox"/>            | A | Calcium              | mg/Kg |         | 6.9713  | 0   |     |
| <input checked="" type="checkbox"/> | A | Chromium             | mg/Kg |         | 0.1184  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cobalt               | mg/Kg |         | 0.0689  | 0   |     |
| <input type="checkbox"/>            | A | Copper               | mg/Kg |         | 0.2323  | 0   |     |
| <input checked="" type="checkbox"/> | A | Iron                 | mg/Kg |         | 0.7476  | 0   |     |
| <input checked="" type="checkbox"/> | A | Lead                 | mg/Kg |         | 0.2194  | 0   |     |
| <input type="checkbox"/>            | A | Magnesium            | mg/Kg |         | 0.4651  | 0   |     |
| <input checked="" type="checkbox"/> | A | Manganese            | mg/Kg |         | 0.0212  | 0   |     |
| <input type="checkbox"/>            | A | Molybdenum           | mg/Kg |         | 0.1423  | 0   |     |
| <input checked="" type="checkbox"/> | A | Nickel               | mg/Kg |         | 0.1668  | 0   |     |
| <input type="checkbox"/>            | A | Potassium            | mg/Kg |         | 17.3925 | 0   |     |
| <input checked="" type="checkbox"/> | A | Selenium             | mg/Kg |         | 1.4025  | 0   |     |
| <input checked="" type="checkbox"/> | A | Silver               | mg/Kg |         | 0.0354  | 0   |     |
| <input type="checkbox"/>            | A | Sodium               | mg/Kg |         | 8.4278  | 0   |     |
| <input type="checkbox"/>            | A | Thallium             | mg/Kg |         | 1.1557  | 0   |     |
| <input type="checkbox"/>            | A | Tin                  | mg/Kg |         | 0.8261  | 0   |     |
| <input type="checkbox"/>            | A | Titanium             | mg/Kg |         | 0.0342  | 0   |     |
| <input type="checkbox"/>            | A | Uranium              | mg/Kg |         | 0.7296  | 0   |     |
| <input checked="" type="checkbox"/> | A | Vanadium             | mg/Kg |         | 0.0565  | 0   |     |
| <input checked="" type="checkbox"/> | A | Zinc                 | mg/Kg |         | 1.0066  | 0   |     |
| <input type="checkbox"/>            | I | Yttrium              | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | I | Yttrium Radial       | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Uranium-confirmation | mg/Kg |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Silicon              | mg/Kg |         | 0       | 0   |     |

+ Hg  
+ Cu



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 19, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210660

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/12/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-001

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF  | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |         |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)            | 1.9     | 1.0      |      | mg/L  | 1   | 10/12/2012 5:00:43 PM  |
| Motor Oil Range Organics (MRO)         | ND      | 5.0      |      | mg/L  | 1   | 10/12/2012 5:00:43 PM  |
| Surr: DNOP                             | 114     | 79.5-166 |      | %REC  | 1   | 10/12/2012 5:00:43 PM  |
| <b>EPA METHOD 300.0: ANIONS</b>        |         |          |      |       |     | Analyst: JRR           |
| Fluoride                               | 13      | 0.50     | *    | mg/L  | 5   | 10/13/2012 8:47:09 PM  |
| Chloride                               | 1500    | 100      |      | mg/L  | 200 | 10/16/2012 10:15:00 PM |
| Sulfate                                | 110     | 2.5      |      | mg/L  | 5   | 10/13/2012 8:47:09 PM  |
| <b>EPA METHOD 200.7: METALS</b>        |         |          |      |       |     | Analyst: JLF           |
| Barium                                 | 17      | 0.080    | *    | mg/L  | 20  | 10/23/2012 1:08:09 PM  |
| Beryllium                              | 0.032   | 0.0040   | *    | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Cadmium                                | ND      | 0.0040   |      | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Chromium                               | 0.14    | 0.012    | *    | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Cobalt                                 | 0.11    | 0.012    |      | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Iron                                   | 160     | 4.0      | *    | mg/L  | 100 | 10/23/2012 1:11:21 PM  |
| Manganese                              | 43      | 0.40     | *    | mg/L  | 100 | 10/23/2012 1:11:21 PM  |
| Nickel                                 | 0.21    | 0.020    | *    | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Silver                                 | ND      | 0.010    |      | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Vanadium                               | 0.20    | 0.10     |      | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| Zinc                                   | 0.27    | 0.020    |      | mg/L  | 1   | 10/19/2012 8:36:07 PM  |
| <b>EPA 200.8: METALS</b>               |         |          |      |       |     | Analyst: DBD           |
| Antimony                               | ND      | 0.0050   |      | mg/L  | 2.5 | 10/24/2012 4:54:26 PM  |
| Arsenic                                | 0.052   | 0.0050   | *    | mg/L  | 2.5 | 10/24/2012 4:54:26 PM  |
| Lead                                   | 0.49    | 0.010    | *    | mg/L  | 5   | 10/25/2012 11:03:24 AM |
| Selenium                               | 0.023   | 0.0050   |      | mg/L  | 2.5 | 11/12/2012 7:32:44 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |         |          |      |       |     | Analyst: IDC           |
| Mercury                                | 0.00022 | 0.00020  |      | mg/L  | 1   | 10/24/2012 7:30:13 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |     | Analyst: JDC           |
| Acenaphthene                           | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Acenaphthylene                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Aniline                                | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Anthracene                             | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Azobenzene                             | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benz(a)anthracene                      | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzo(a)pyrene                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzo(b)fluoranthene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzo(g,h,i)perylene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzo(k)fluoranthene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzoic acid                           | ND      | 20       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |
| Benzyl alcohol                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:23:26 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-001

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Di-n-octyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4-Dimethylphenol                     | 230    | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 1-Methylnaphthalene                    | 10     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-24 GW

Project: SWMU NO.1

Collection Date: 10/10/2012 10:15:00 AM

Lab ID: 1210660-001

Matrix: AQUEOUS

Received Date: 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Naphthalene                            | 11     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:23:26 PM |
| Surr: 2,4,6-Tribromophenol             | 81.9   | 44.2-126  |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| Surr: 2-Fluorobiphenyl                 | 69.7   | 37-114    |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| Surr: 2-Fluorophenol                   | 55.0   | 23.4-98   |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| Surr: 4-Terphenyl-d14                  | 68.1   | 41.3-116  |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| Surr: Nitrobenzene-d5                  | 74.1   | 39.5-118  |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| Surr: Phenol-d5                        | 49.5   | 20.9-95.9 |      | %REC  | 1  | 10/16/2012 3:23:26 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF          |
| Benzene                                | 20     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Toluene                                | 18     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Ethylbenzene                           | 8.9    | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Methyl tert-butyl ether (MTBE)         | 65     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2,4-Trimethylbenzene                 | 15     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Naphthalene                            | 22     | 10        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1-Methylnaphthalene                    | ND     | 20        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 2-Methylnaphthalene                    | ND     | 20        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Acetone                                | 52     | 50        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Bromobenzene                           | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Bromodichloromethane                   | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Bromoform                              | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Bromomethane                           | ND     | 15        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 2-Butanone                             | ND     | 50        |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-001

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF          |
| Carbon disulfide                   | ND     | 50  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Carbon Tetrachloride               | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Chlorobenzene                      | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Chloroethane                       | ND     | 10  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Chloroform                         | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Chloromethane                      | ND     | 15  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 2-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 4-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| cis-1,2-DCE                        | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| cis-1,3-Dichloropropene            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2-Dibromo-3-chloropropane        | ND     | 10  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Dibromochloromethane               | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Dibromomethane                     | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,3-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,4-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Dichlorodifluoromethane            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1-Dichloroethane                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1-Dichloroethene                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,3-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 2,2-Dichloropropane                | ND     | 10  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1-Dichloropropene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Hexachlorobutadiene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 2-Hexanone                         | ND     | 50  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Isopropylbenzene                   | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 4-Isopropyltoluene                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 4-Methyl-2-pentanone               | ND     | 50  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Methylene Chloride                 | ND     | 15  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| n-Butylbenzene                     | ND     | 15  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| n-Propylbenzene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| sec-Butylbenzene                   | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Styrene                            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| tert-Butylbenzene                  | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 10  |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Tetrachloroethene (PCE)            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| trans-1,2-DCE                      | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| trans-1,3-Dichloropropene          | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2,3-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2,4-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,1,1-Trichloroethane              | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-001

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| 1,1,2-Trichloroethane                   | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Trichloroethene (TCE)                   | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Trichlorofluoromethane                  | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| 1,2,3-Trichloropropane                  | ND     | 10     |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Vinyl chloride                          | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Xylenes, Total                          | 38     | 7.5    |      | µg/L  | 5  | 10/17/2012 8:29:42 PM |
| Surr: 1,2-Dichloroethane-d4             | 90.2   | 70-130 |      | %REC  | 5  | 10/17/2012 8:29:42 PM |
| Surr: 4-Bromofluorobenzene              | 98.3   | 70-130 |      | %REC  | 5  | 10/17/2012 8:29:42 PM |
| Surr: Dibromofluoromethane              | 93.5   | 70-130 |      | %REC  | 5  | 10/17/2012 8:29:42 PM |
| Surr: Toluene-d8                        | 93.9   | 70-130 |      | %REC  | 5  | 10/17/2012 8:29:42 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)           | 1.9    | 0.25   |      | mg/L  | 5  | 10/20/2012 4:11:59 PM |
| Surr: BFB                               | 94.0   | 70-130 |      | %REC  | 5  | 10/20/2012 4:11:59 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW DUP

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-002

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF  | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |         |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)            | 1.9     | 1.0      |      | mg/L  | 1   | 10/12/2012 5:25:56 PM  |
| Motor Oil Range Organics (MRO)         | ND      | 5.0      |      | mg/L  | 1   | 10/12/2012 5:25:56 PM  |
| Surr: DNOP                             | 113     | 79.5-166 |      | %REC  | 1   | 10/12/2012 5:25:56 PM  |
| <b>EPA METHOD 300.0: ANIONS</b>        |         |          |      |       |     | Analyst: JRR           |
| Fluoride                               | 13      | 0.50     | *    | mg/L  | 5   | 10/13/2012 9:11:58 PM  |
| Chloride                               | 1500    | 100      |      | mg/L  | 200 | 10/16/2012 10:27:24 PM |
| Sulfate                                | 100     | 2.5      |      | mg/L  | 5   | 10/13/2012 9:11:58 PM  |
| <b>EPA METHOD 200.7: METALS</b>        |         |          |      |       |     | Analyst: JLF           |
| Barium                                 | 20      | 0.080    | *    | mg/L  | 20  | 10/23/2012 1:26:06 PM  |
| Beryllium                              | 0.032   | 0.0040   | *    | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Cadmium                                | ND      | 0.0040   |      | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Chromium                               | 0.16    | 0.012    | *    | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Cobalt                                 | 0.11    | 0.012    |      | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Iron                                   | 180     | 4.0      | *    | mg/L  | 100 | 10/23/2012 1:29:50 PM  |
| Manganese                              | 39      | 0.080    | *    | mg/L  | 20  | 10/23/2012 1:26:06 PM  |
| Nickel                                 | 0.21    | 0.020    | *    | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Silver                                 | ND      | 0.010    |      | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Vanadium                               | 0.18    | 0.10     |      | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| Zinc                                   | 0.28    | 0.020    |      | mg/L  | 1   | 10/19/2012 8:55:06 PM  |
| <b>EPA 200.8: METALS</b>               |         |          |      |       |     | Analyst: DBD           |
| Antimony                               | ND      | 0.0050   |      | mg/L  | 2.5 | 10/24/2012 4:58:22 PM  |
| Arsenic                                | 0.058   | 0.0050   | *    | mg/L  | 2.5 | 10/24/2012 4:58:22 PM  |
| Lead                                   | 0.55    | 0.020    | *    | mg/L  | 10  | 10/25/2012 11:23:04 AM |
| Selenium                               | 0.020   | 0.0050   |      | mg/L  | 2.5 | 11/12/2012 7:34:36 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |         |          |      |       |     | Analyst: IDC           |
| Mercury                                | 0.00027 | 0.00020  |      | mg/L  | 1   | 10/24/2012 7:32:00 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |     | Analyst: JDC           |
| Acenaphthene                           | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Acenaphthylene                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Aniline                                | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Anthracene                             | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Azobenzene                             | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benz(a)anthracene                      | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzo(a)pyrene                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzo(b)fluoranthene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzo(g,h,i)perylene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzo(k)fluoranthene                   | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzoic acid                           | ND      | 20       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |
| Benzyl alcohol                         | ND      | 10       |      | µg/L  | 1   | 10/16/2012 3:53:35 PM  |

**Qualifiers:**

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- P Sample pH greater than 2
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW DUP

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-002

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Di-n-butyl phthalate                   | 11     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Di-n-octyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2,4-Dimethylphenol                     | 260    | 20 |      | µg/L  | 2  | 10/20/2012 9:06:37 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 1-Methylnaphthalene                    | 11     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 3:53:35 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW DUP

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-002

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|-----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC           |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Naphthalene                            | 12     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: 2,4,6-Tribromophenol             | 83.7   | 44.2-126  |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: 2-Fluorobiphenyl                 | 75.7   | 37-114    |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: 2-Fluorophenol                   | 58.4   | 23.4-98   |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: 4-Terphenyl-d14                  | 64.7   | 41.3-116  |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: Nitrobenzene-d5                  | 75.9   | 39.5-118  |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| Surr: Phenol-d5                        | 49.8   | 20.9-95.9 |      | %REC  | 1  | 10/16/2012 3:53:35 PM  |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF           |
| Benzene                                | 19     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Toluene                                | 19     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Ethylbenzene                           | 8.8    | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Methyl tert-butyl ether (MTBE)         | 70     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2,4-Trimethylbenzene                 | 14     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Naphthalene                            | 21     | 10        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1-Methylnaphthalene                    | ND     | 20        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 2-Methylnaphthalene                    | ND     | 20        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Acetone                                | 64     | 50        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Bromobenzene                           | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Bromodichloromethane                   | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Bromoform                              | ND     | 5.0       |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Bromomethane                           | ND     | 15        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 2-Butanone                             | ND     | 50        |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW DUP

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-002

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed          |
|------------------------------------|--------|-----|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF           |
| Carbon disulfide                   | ND     | 50  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Carbon Tetrachloride               | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Chlorobenzene                      | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Chloroethane                       | ND     | 10  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Chloroform                         | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Chloromethane                      | ND     | 15  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 2-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 4-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| cis-1,2-DCE                        | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| cis-1,3-Dichloropropene            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2-Dibromo-3-chloropropane        | ND     | 10  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Dibromochloromethane               | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Dibromomethane                     | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,3-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,4-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Dichlorodifluoromethane            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1-Dichloroethane                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1-Dichloroethene                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,3-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 2,2-Dichloropropane                | ND     | 10  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1-Dichloropropene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Hexachlorobutadiene                | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 2-Hexanone                         | ND     | 50  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Isopropylbenzene                   | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 4-Isopropyltoluene                 | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 4-Methyl-2-pentanone               | ND     | 50  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Methylene Chloride                 | ND     | 15  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| n-Butylbenzene                     | ND     | 15  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| n-Propylbenzene                    | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| sec-Butylbenzene                   | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Styrene                            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| tert-Butylbenzene                  | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 10  |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Tetrachloroethene (PCE)            | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| trans-1,2-DCE                      | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| trans-1,3-Dichloropropene          | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2,3-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2,4-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,1,1-Trichloroethane              | ND     | 5.0 |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-24 GW DUP

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 10:15:00 AM

**Lab ID:** 1210660-002

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed          |
|-----------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF           |
| 1,1,2-Trichloroethane                   | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Trichloroethene (TCE)                   | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Trichlorofluoromethane                  | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| 1,2,3-Trichloropropane                  | ND     | 10     |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Vinyl chloride                          | ND     | 5.0    |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Xylenes, Total                          | 36     | 7.5    |      | µg/L  | 5  | 10/17/2012 10:22:32 PM |
| Surr: 1,2-Dichloroethane-d4             | 91.3   | 70-130 |      | %REC  | 5  | 10/17/2012 10:22:32 PM |
| Surr: 4-Bromofluorobenzene              | 95.0   | 70-130 |      | %REC  | 5  | 10/17/2012 10:22:32 PM |
| Surr: Dibromofluoromethane              | 91.6   | 70-130 |      | %REC  | 5  | 10/17/2012 10:22:32 PM |
| Surr: Toluene-d8                        | 94.4   | 70-130 |      | %REC  | 5  | 10/17/2012 10:22:32 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)           | 1.9    | 0.25   |      | mg/L  | 5  | 10/20/2012 6:05:32 PM  |
| Surr: BFB                               | 98.6   | 70-130 |      | %REC  | 5  | 10/20/2012 6:05:32 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: SWMU NO.1

Collection Date:

Lab ID: 1210660-003

Matrix: TRIP BLANK

Received Date: 10/12/2012 8:00:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed          |
|------------------------------------|--------|-----|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF           |
| Benzene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Toluene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Ethylbenzene                       | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Methyl tert-butyl ether (MTBE)     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2,4-Trimethylbenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,3,5-Trimethylbenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2-Dichloroethane (EDC)           | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2-Dibromoethane (EDB)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Naphthalene                        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1-Methylnaphthalene                | ND     | 4.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 2-Methylnaphthalene                | ND     | 4.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Acetone                            | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Bromobenzene                       | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Bromodichloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Bromoform                          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Bromomethane                       | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 2-Butanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: SWMU NO.1

Collection Date:

Lab ID: 1210660-003

Matrix: TRIP BLANK

Received Date: 10/12/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed          |
|-----------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF           |
| Isopropylbenzene                        | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 4-Isopropyltoluene                      | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 4-Methyl-2-pentanone                    | ND     | 10     |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Methylene Chloride                      | ND     | 3.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| n-Butylbenzene                          | ND     | 3.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| n-Propylbenzene                         | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| sec-Butylbenzene                        | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Styrene                                 | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| tert-Butylbenzene                       | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1,1,2-Tetrachloroethane               | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Tetrachloroethene (PCE)                 | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| trans-1,2-DCE                           | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| trans-1,3-Dichloropropene               | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2,3-Trichlorobenzene                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2,4-Trichlorobenzene                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1,1-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 12:15:16 AM |
| Surr: 1,2-Dichloroethane-d4             | 89.9   | 70-130 |      | %REC  | 1  | 10/18/2012 12:15:16 AM |
| Surr: 4-Bromofluorobenzene              | 91.8   | 70-130 |      | %REC  | 1  | 10/18/2012 12:15:16 AM |
| Surr: Dibromofluoromethane              | 93.5   | 70-130 |      | %REC  | 1  | 10/18/2012 12:15:16 AM |
| Surr: Toluene-d8                        | 96.3   | 70-130 |      | %REC  | 1  | 10/18/2012 12:15:16 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 7:02:36 PM  |
| Surr: BFB                               | 100    | 70-130 |      | %REC  | 1  | 10/20/2012 7:02:36 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101012

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:45:00 PM

**Lab ID:** 1210660-004

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |        |          |      |       |    | Analyst: JMP          |
| Diesel Range Organics (DRO)            | ND     | 1.0      |      | mg/L  | 1  | 10/12/2012 5:51:00 PM |
| Motor Oil Range Organics (MRO)         | ND     | 5.0      |      | mg/L  | 1  | 10/12/2012 5:51:00 PM |
| Surr: DNOP                             | 112    | 79.5-166 |      | %REC  | 1  | 10/12/2012 5:51:00 PM |
| <b>EPA METHOD 300.0: ANIONS</b>        |        |          |      |       |    | Analyst: JRR          |
| Fluoride                               | ND     | 0.10     |      | mg/L  | 1  | 10/13/2012 8:22:19 PM |
| Chloride                               | ND     | 0.50     |      | mg/L  | 1  | 10/13/2012 8:22:19 PM |
| Sulfate                                | ND     | 0.50     |      | mg/L  | 1  | 10/13/2012 8:22:19 PM |
| <b>EPA METHOD 200.7: METALS</b>        |        |          |      |       |    | Analyst: JLF          |
| Barium                                 | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Beryllium                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Cadmium                                | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Chromium                               | ND     | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Cobalt                                 | ND     | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Iron                                   | ND     | 0.020    |      | mg/L  | 1  | 10/18/2012 2:03:15 PM |
| Manganese                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Nickel                                 | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Silver                                 | ND     | 0.0050   |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Vanadium                               | ND     | 0.050    |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| Zinc                                   | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:10:57 PM |
| <b>EPA 200.8: METALS</b>               |        |          |      |       |    | Analyst: DBD          |
| Antimony                               | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 6:54:33 PM |
| Arsenic                                | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 6:54:33 PM |
| Lead                                   | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 6:54:33 PM |
| Selenium                               | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 6:54:33 PM |
| <b>EPA METHOD 245.1: MERCURY</b>       |        |          |      |       |    | Analyst: IDC          |
| Mercury                                | ND     | 0.00020  |      | mg/L  | 1  | 10/24/2012 7:33:46 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| Acenaphthene                           | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Acenaphthylene                         | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Aniline                                | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Anthracene                             | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Azobenzene                             | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benz(a)anthracene                      | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzo(a)pyrene                         | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzo(b)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzo(g,h,i)perylene                   | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzo(k)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzoic acid                           | ND     | 20       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Benzyl alcohol                         | ND     | 10       |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101012

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:45:00 PM

**Lab ID:** 1210660-004

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Di-n-octyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/16/2012 4:23:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101012

Project: SWMU NO.1

Collection Date: 10/10/2012 6:45:00 PM

Lab ID: 1210660-004

Matrix: AQUEOUS

Received Date: 10/12/2012 8:00:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|-----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC           |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: 2,4,6-Tribromophenol             | 83.9   | 44.2-126  |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: 2-Fluorobiphenyl                 | 67.2   | 37-114    |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: 2-Fluorophenol                   | 53.6   | 23.4-98   |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: 4-Terphenyl-d14                  | 73.0   | 41.3-116  |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: Nitrobenzene-d5                  | 76.8   | 39.5-118  |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| Surr: Phenol-d5                        | 44.7   | 20.9-95.9 |      | %REC  | 1  | 10/16/2012 4:23:30 PM  |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF           |
| Benzene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Acetone                                | ND     | 10        |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101012

Project: SWMU NO.1

Collection Date: 10/10/2012 6:45:00 PM

Lab ID: 1210660-004

Matrix: AQUEOUS

Received Date: 10/12/2012 8:00:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed          |
|------------------------------------|--------|-----|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF           |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Isopropylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Methylene Chloride                 | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| n-Butylbenzene                     | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| n-Propylbenzene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| sec-Butylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Styrene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| tert-Butylbenzene                  | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| trans-1,2-DCE                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2,3-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210660

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101012

**Project:** SWMU NO.1

**Collection Date:** 10/10/2012 6:45:00 PM

**Lab ID:** 1210660-004

**Matrix:** AQUEOUS

**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed          |
|-----------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF           |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 12:43:20 AM |
| Surr: 1,2-Dichloroethane-d4             | 91.8   | 70-130 |      | %REC  | 1  | 10/18/2012 12:43:20 AM |
| Surr: 4-Bromofluorobenzene              | 93.4   | 70-130 |      | %REC  | 1  | 10/18/2012 12:43:20 AM |
| Surr: Dibromofluoromethane              | 92.4   | 70-130 |      | %REC  | 1  | 10/18/2012 12:43:20 AM |
| Surr: Toluene-d8                        | 95.0   | 70-130 |      | %REC  | 1  | 10/18/2012 12:43:20 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 7:30:51 PM  |
| Surr: BFB                               | 95.6   | 70-130 |      | %REC  | 1  | 10/20/2012 7:30:51 PM  |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121016063  
**Project Name:** 1210660

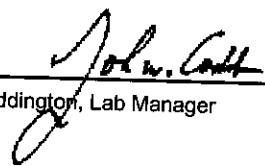
## Analytical Results Report

|                  |                             |                 |            |                    |                    |           |           |
|------------------|-----------------------------|-----------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121016063-001               | Sampling Date   | 10/10/2012 | Date/Time Received | 10/16/2012 1:00 PM |           |           |
| Client Sample ID | 1210660-001F / SWMU 1-24 GW |                 |            | Sampling Time      | 10:15 AM           |           |           |
| Matrix           | Water                       | Sample Location |            |                    |                    |           |           |
| Comments         |                             |                 |            |                    |                    |           |           |
| Parameter        | Result                      | Units           | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.0587                      | mg/L            | 0.01       | 10/24/2012         | CRW                | EPA 335.4 |           |

|                  |                                 |                 |            |                    |                    |           |           |
|------------------|---------------------------------|-----------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121016063-002                   | Sampling Date   | 10/10/2012 | Date/Time Received | 10/16/2012 1:00 PM |           |           |
| Client Sample ID | 1210660-002F / SWMU 1-24 GW DUP |                 |            | Sampling Time      | 10:15 AM           |           |           |
| Matrix           | Water                           | Sample Location |            |                    |                    |           |           |
| Comments         |                                 |                 |            |                    |                    |           |           |
| Parameter        | Result                          | Units           | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.0806                          | mg/L            | 0.01       | 10/24/2012         | CRW                | EPA 335.4 |           |

|                  |                         |                 |            |                    |                    |           |           |
|------------------|-------------------------|-----------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121016063-003           | Sampling Date   | 10/10/2012 | Date/Time Received | 10/16/2012 1:00 PM |           |           |
| Client Sample ID | 1210660-004F / EB101012 |                 |            | Sampling Time      | 6:45 PM            |           |           |
| Matrix           | Water                   | Sample Location |            |                    |                    |           |           |
| Comments         |                         |                 |            |                    |                    |           |           |
| Parameter        | Result                  | Units           | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                      | mg/L            | 0.01       | 10/24/2012         | CRW                | EPA 335.4 |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Friday, November 02, 2012

Page 1 of 1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6311           |           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/17/2012 |           |             | SeqNo: 181710                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Barium     | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Beryllium  | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Cadmium    | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Chromium   | ND     | 0.0060                    |           |             |                                    |          |             |      |          |      |
| Cobalt     | ND     | 0.0060                    |           |             |                                    |          |             |      |          |      |
| Manganese  | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Nickel     | ND     | 0.010                     |           |             |                                    |          |             |      |          |      |
| Silver     | ND     | 0.0050                    |           |             |                                    |          |             |      |          |      |
| Vanadium   | ND     | 0.050                     |           |             |                                    |          |             |      |          |      |
| Zinc       | ND     | 0.010                     |           |             |                                    |          |             |      |          |      |

|            |        |        |                           |             |                                    |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6311           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/17/2012 |             | SeqNo: 181711                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Barium     | 0.50   | 0.0020 | 0.5000                    | 0           | 101                                | 85       | 115         |      |          |      |
| Beryllium  | 0.51   | 0.0020 | 0.5000                    | 0           | 103                                | 85       | 115         |      |          |      |
| Cadmium    | 0.51   | 0.0020 | 0.5000                    | 0           | 102                                | 85       | 115         |      |          |      |
| Chromium   | 0.49   | 0.0060 | 0.5000                    | 0           | 98.9                               | 85       | 115         |      |          |      |
| Cobalt     | 0.49   | 0.0060 | 0.5000                    | 0           | 97.1                               | 85       | 115         |      |          |      |
| Manganese  | 0.49   | 0.0020 | 0.5000                    | 0           | 98.1                               | 85       | 115         |      |          |      |
| Nickel     | 0.48   | 0.010  | 0.5000                    | 0           | 95.9                               | 85       | 115         |      |          |      |
| Silver     | 0.10   | 0.0050 | 0.1000                    | 0           | 102                                | 85       | 115         |      |          |      |
| Vanadium   | 0.52   | 0.050  | 0.5000                    | 0           | 104                                | 85       | 115         |      |          |      |
| Zinc       | 0.49   | 0.010  | 0.5000                    | 0           | 98.4                               | 85       | 115         |      |          |      |

|            |                |        |                           |             |                                    |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210572-018AMS |        | SampType: MS              |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6311           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/17/2012 |             | SeqNo: 181754                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cadmium    | 0.50           | 0.0020 | 0.5000                    | 0           | 101                                | 70       | 130         |      |          |      |
| Chromium   | 0.47           | 0.0060 | 0.5000                    | 0           | 95.0                               | 70       | 130         |      |          |      |
| Nickel     | 0.45           | 0.010  | 0.5000                    | 0.001290    | 90.7                               | 70       | 130         |      |          |      |
| Zinc       | 0.46           | 0.010  | 0.5000                    | 0           | 92.7                               | 70       | 130         |      |          |      |

|            |                 |     |                |             |      |           |                          |      |             |      |  |
|------------|-----------------|-----|----------------|-------------|------|-----------|--------------------------|------|-------------|------|--|
| Sample ID  | 1210572-018AMSD |     | SampType:      | MSD         |      | TestCode: | EPA Method 200.7: Metals |      |             |      |  |
| Client ID: | BatchQC         |     | Batch ID:      | R6311       |      | RunNo:    | 6311                     |      |             |      |  |
| Prep Date: |                 |     | Analysis Date: | 10/17/2012  |      | SeqNo:    | 181755                   |      | Units: mg/L |      |  |
| Analyte    | Result          | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit    | Qual |  |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                        |        |                |                   |      |           |                                 |      |                    |      |
|------------|------------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210572-018AMSD</b> |        | SampType:      | <b>MSD</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>         |        | Batch ID:      | <b>R6311</b>      |      | RunNo:    | <b>6311</b>                     |      |                    |      |
| Prep Date: |                        |        | Analysis Date: | <b>10/17/2012</b> |      | SeqNo:    | <b>181755</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                 | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Cadmium    | 0.50                   | 0.0020 | 0.5000         | 0                 | 99.7 | 70        | 130                             | 1.02 | 20                 |      |
| Chromium   | 0.47                   | 0.0060 | 0.5000         | 0                 | 93.9 | 70        | 130                             | 1.11 | 20                 |      |
| Nickel     | 0.46                   | 0.010  | 0.5000         | 0.001290          | 92.0 | 70        | 130                             | 1.48 | 20                 |      |
| Zinc       | 0.46                   | 0.010  | 0.5000         | 0                 | 91.7 | 70        | 130                             | 1.09 | 20                 |      |

|            |            |       |                |                   |      |           |                                 |      |                    |      |
|------------|------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>MB</b>  |       | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b> |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |            |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182483</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result     | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | ND         | 0.020 |                |                   |      |           |                                 |      |                    |      |

|            |             |       |                |                   |      |           |                                 |      |                    |      |
|------------|-------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>LCS</b>  |       | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>LCSW</b> |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |             |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182484</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result      | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.49        | 0.020 | 0.5000         | 0                 | 98.1 | 85        | 115                             |      |                    |      |

|            |                       |       |                |                   |      |           |                                 |      |                    |      |
|------------|-----------------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210513-001AMS</b> |       | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>        |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |                       |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182578</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.50                  | 0.020 | 0.5000         | 0                 | 100  | 70        | 130                             |      |                    |      |

|            |                        |       |                |                   |      |           |                                 |      |                    |      |
|------------|------------------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210513-001AMSD</b> |       | SampType:      | <b>MSD</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>         |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |                        |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182579</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                 | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.49                   | 0.020 | 0.5000         | 0                 | 98.8 | 70        | 130                             | 1.41 | 20                 |      |

|            |                   |        |                |                   |      |           |                                 |      |                    |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>MB-4388</b>    |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |      |                    |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183397</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Barium     | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Beryllium  | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Cadmium    | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Chromium   | ND                | 0.0060 |                |                   |      |           |                                 |      |                    |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                   |        |                |                   |      |           |                                 |      |                    |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>MB-4388</b>    |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |      |                    |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183397</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Cobalt     | ND                | 0.0060 |                |                   |      |           |                                 |      |                    |      |
| Iron       | ND                | 0.020  |                |                   |      |           |                                 |      |                    |      |
| Manganese  | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Nickel     | ND                | 0.010  |                |                   |      |           |                                 |      |                    |      |
| Silver     | ND                | 0.0050 |                |                   |      |           |                                 |      |                    |      |
| Vanadium   | ND                | 0.050  |                |                   |      |           |                                 |      |                    |      |
| Zinc       | ND                | 0.010  |                |                   |      |           |                                 |      |                    |      |

|            |                   |        |                |                   |      |           |                                 |      |                    |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>LCS-4388</b>   |        | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>LCSW</b>       |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |      |                    |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183398</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Barium     | 0.48              | 0.0020 | 0.5000         | 0                 | 95.9 | 85        | 115                             |      |                    |      |
| Beryllium  | 0.52              | 0.0020 | 0.5000         | 0                 | 104  | 85        | 115                             |      |                    |      |
| Cadmium    | 0.51              | 0.0020 | 0.5000         | 0                 | 102  | 85        | 115                             |      |                    |      |
| Chromium   | 0.49              | 0.0060 | 0.5000         | 0                 | 97.1 | 85        | 115                             |      |                    |      |
| Cobalt     | 0.47              | 0.0060 | 0.5000         | 0                 | 93.3 | 85        | 115                             |      |                    |      |
| Iron       | 0.47              | 0.020  | 0.5000         | 0                 | 94.4 | 85        | 115                             |      |                    |      |
| Manganese  | 0.47              | 0.0020 | 0.5000         | 0                 | 93.4 | 85        | 115                             |      |                    |      |
| Nickel     | 0.46              | 0.010  | 0.5000         | 0                 | 92.2 | 85        | 115                             |      |                    |      |
| Silver     | 0.10              | 0.0050 | 0.1000         | 0                 | 103  | 85        | 115                             |      |                    |      |
| Vanadium   | 0.51              | 0.050  | 0.5000         | 0                 | 102  | 85        | 115                             |      |                    |      |
| Zinc       | 0.48              | 0.010  | 0.5000         | 0                 | 95.3 | 85        | 115                             |      |                    |      |

|            |                       |        |                |                   |      |           |                                 |      |                    |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210692-027DMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |      |                    |      |
| Prep Date: | <b>10/18/2012</b>     |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183451</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Barium     | 0.45                  | 0.0020 | 0.5000         | 0.001070          | 90.6 | 70        | 130                             |      |                    |      |
| Beryllium  | 0.49                  | 0.0020 | 0.5000         | 0                 | 97.3 | 70        | 130                             |      |                    |      |
| Cadmium    | 0.48                  | 0.0020 | 0.5000         | 0                 | 95.6 | 70        | 130                             |      |                    |      |
| Chromium   | 0.46                  | 0.0060 | 0.5000         | 0                 | 91.5 | 70        | 130                             |      |                    |      |
| Cobalt     | 0.43                  | 0.0060 | 0.5000         | 0                 | 86.4 | 70        | 130                             |      |                    |      |
| Manganese  | 0.45                  | 0.0020 | 0.5000         | 0.001780          | 89.2 | 70        | 130                             |      |                    |      |
| Nickel     | 0.42                  | 0.010  | 0.5000         | 0.001690          | 83.9 | 70        | 130                             |      |                    |      |
| Silver     | 0.095                 | 0.0050 | 0.1000         | 0                 | 94.9 | 70        | 130                             |      |                    |      |
| Vanadium   | 0.49                  | 0.050  | 0.5000         | 0                 | 98.2 | 70        | 130                             |      |                    |      |
| Zinc       | 0.42                  | 0.010  | 0.5000         | 0                 | 83.3 | 70        | 130                             |      |                    |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |        |                           |             |                                    |          |             |        |          |      |
|------------|-----------------|--------|---------------------------|-------------|------------------------------------|----------|-------------|--------|----------|------|
| Sample ID  | 1210692-027DMSD |        | SampType: MSD             |             | TestCode: EPA Method 200.7: Metals |          |             |        |          |      |
| Client ID: | BatchQC         |        | Batch ID: 4388            |             | RunNo: 6377                        |          |             |        |          |      |
| Prep Date: | 10/18/2012      |        | Analysis Date: 10/19/2012 |             | SeqNo: 183452                      |          | Units: mg/L |        |          |      |
| Analyte    | Result          | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD   | RPDLimit | Qual |
| Barium     | 0.46            | 0.0020 | 0.5000                    | 0.001070    | 91.1                               | 70       | 130         | 0.538  | 20       |      |
| Beryllium  | 0.49            | 0.0020 | 0.5000                    | 0           | 97.1                               | 70       | 130         | 0.126  | 20       |      |
| Cadmium    | 0.48            | 0.0020 | 0.5000                    | 0           | 95.8                               | 70       | 130         | 0.190  | 20       |      |
| Chromium   | 0.46            | 0.0060 | 0.5000                    | 0           | 91.8                               | 70       | 130         | 0.347  | 20       |      |
| Cobalt     | 0.43            | 0.0060 | 0.5000                    | 0           | 86.8                               | 70       | 130         | 0.490  | 20       |      |
| Manganese  | 0.45            | 0.0020 | 0.5000                    | 0.001780    | 89.7                               | 70       | 130         | 0.617  | 20       |      |
| Nickel     | 0.42            | 0.010  | 0.5000                    | 0.001690    | 84.4                               | 70       | 130         | 0.521  | 20       |      |
| Silver     | 0.098           | 0.0050 | 0.1000                    | 0           | 98.2                               | 70       | 130         | 3.36   | 20       |      |
| Vanadium   | 0.49            | 0.050  | 0.5000                    | 0           | 98.2                               | 70       | 130         | 0.0244 | 20       |      |
| Zinc       | 0.42            | 0.010  | 0.5000                    | 0           | 83.9                               | 70       | 130         | 0.765  | 20       |      |

|            |                |       |                           |             |                                    |          |             |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210692-027DMS |       | SampType: MS              |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4388            |             | RunNo: 6431                        |          |             |      |          |      |
| Prep Date: | 10/18/2012     |       | Analysis Date: 10/23/2012 |             | SeqNo: 184811                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.60           | 0.020 | 0.5000                    | 0.1311      | 92.9                               | 70       | 130         |      |          |      |

|            |                 |       |                           |             |                                    |          |             |      |          |      |
|------------|-----------------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210692-027DMSD |       | SampType: MSD             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: 4388            |             | RunNo: 6431                        |          |             |      |          |      |
| Prep Date: | 10/18/2012      |       | Analysis Date: 10/23/2012 |             | SeqNo: 184812                      |          | Units: mg/L |      |          |      |
| Analyte    | Result          | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.60            | 0.020 | 0.5000                    | 0.1311      | 94.6                               | 70       | 130         | 1.40 | 20       |      |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |        |                           |             |                             |          |             |      |          |      |
|------------|------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4388    |        | SampType: MBLK            |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | PBW        |        | Batch ID: 4388            |             | RunNo: 6368                 |          |             |      |          |      |
| Prep Date: | 10/18/2012 |        | Analysis Date: 10/19/2012 |             | SeqNo: 183111               |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | ND         | 0.0025 |                           |             |                             |          |             |      |          |      |
| Arsenic    | ND         | 0.0025 |                           |             |                             |          |             |      |          |      |
| Lead       | ND         | 0.0025 |                           |             |                             |          |             |      |          |      |

|            |                |        |                           |             |                             |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1209C98-001AMS |        | SampType: MS              |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6483           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/25/2012 |             | SeqNo: 186650               |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.031          | 0.0010 | 0.02500                   | 0.005774    | 102                         | 70       | 130         |      |          |      |

|            |        |        |                           |             |                             |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6483           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             | SeqNo: 186664               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.026  | 0.0010 | 0.02500                   | 0           | 103                         | 85       | 115         |      |          |      |
| Arsenic    | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 105                         | 85       | 115         |      |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |

|            |        |        |                           |             |                             |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6483           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             | SeqNo: 186665               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |
| Arsenic    | 0.026  | 0.0010 | 0.02500                   | 0           | 105                         | 85       | 115         |      |          |      |
| Lead       | 0.027  | 0.0010 | 0.02500                   | 0           | 106                         | 85       | 115         |      |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |

|            |        |                           |           |             |                             |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6483           |           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/25/2012 |           |             | SeqNo: 186667               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Arsenic    | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Lead       | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Selenium   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |        |                |                   |      |           |                          |        |             |      |
|------------|------------|--------|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>MB</b>  |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>PBW</b> |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |            |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>186668</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result     | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |
| Antimony   | ND         | 0.0010 |                |                   |      |           |                          |        |             |      |
| Arsenic    | ND         | 0.0010 |                |                   |      |           |                          |        |             |      |
| Lead       | ND         | 0.0010 |                |                   |      |           |                          |        |             |      |
| Selenium   | ND         | 0.0010 |                |                   |      |           |                          |        |             |      |

|            |                       |        |                |                   |      |           |                          |        |             |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>1210516-002BMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |                       |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>187056</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |
| Arsenic    | 0.026                 | 0.0010 | 0.02500        | 0                 | 102  | 70        | 130                      |        |             |      |
| Lead       | 0.029                 | 0.0010 | 0.02500        | 0.002703          | 104  | 70        | 130                      |        |             |      |
| Selenium   | 0.026                 | 0.0010 | 0.02500        | 0                 | 102  | 70        | 130                      |        |             |      |

|            |                       |        |                |                   |      |           |                          |        |             |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>1210544-001CMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |                       |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>187059</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |
| Antimony   | 0.025                 | 0.0010 | 0.02500        | 0                 | 98.2 | 70        | 130                      |        |             |      |
| Arsenic    | 0.027                 | 0.0010 | 0.02500        | 0.001693          | 101  | 70        | 130                      |        |             |      |
| Selenium   | 0.026                 | 0.0010 | 0.02500        | 0.001046          | 100  | 70        | 130                      |        |             |      |

|            |                       |        |                |                   |      |           |                          |        |             |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>1210724-001AMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |                       |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>187071</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |
| Arsenic    | 0.048                 | 0.0010 | 0.02500        | 0.02319           | 99.5 | 70        | 130                      |        |             |      |

|            |                       |        |                |                   |      |           |                          |        |             |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>1210724-010AMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |                       |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>187081</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |
| Arsenic    | 0.029                 | 0.0010 | 0.02500        | 0.004033          | 101  | 70        | 130                      |        |             |      |

|            |             |     |                |                   |      |           |                          |        |             |      |
|------------|-------------|-----|----------------|-------------------|------|-----------|--------------------------|--------|-------------|------|
| Sample ID  | <b>LCS</b>  |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA 200.8: Metals</b> |        |             |      |
| Client ID: | <b>LCSW</b> |     | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |        |             |      |
| Prep Date: |             |     | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>187100</b>            | Units: | <b>mg/L</b> |      |
| Analyte    | Result      | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD   | RPDLimit    | Qual |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |        |                           |             |                             |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6483           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             | SeqNo: 187100               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.024  | 0.0010 | 0.02500                   | 0           | 96.9                        | 85       | 115         |      |          |      |
| Arsenic    | 0.025  | 0.0010 | 0.02500                   | 0           | 100                         | 85       | 115         |      |          |      |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 104                         | 85       | 115         |      |          |      |

|            |        |                           |           |             |                             |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    | SampType: LCS             |           |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   | Batch ID: R6483           |           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/25/2012 |           |             | SeqNo: 187101               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.024  | 0.0010                    | 0.02500   | 0           | 96.2                        | 85       | 115         |      |          |      |
| Arsenic    | 0.025  | 0.0010                    | 0.02500   | 0           | 99.5                        | 85       | 115         |      |          |      |
| Lead       | 0.026  | 0.0010                    | 0.02500   | 0           | 105                         | 85       | 115         |      |          |      |
| Selenium   | 0.026  | 0.0010                    | 0.02500   | 0           | 104                         | 85       | 115         |      |          |      |

|            |        |                           |           |             |                             |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6483           |           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/25/2012 |           |             | SeqNo: 187102               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Arsenic    | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Lead       | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Selenium   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |

|            |        |                           |           |             |                             |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6483           |           |             | RunNo: 6483                 |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/25/2012 |           |             | SeqNo: 187103               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Arsenic    | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Lead       | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |
| Selenium   | ND     | 0.0010                    |           |             |                             |          |             |      |          |      |

|            |           |        |                           |             |                             |          |             |      |          |      |
|------------|-----------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4738   |        | SampType: MBLK            |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | PBW       |        | Batch ID: 4738            |             | RunNo: 6848                 |          |             |      |          |      |
| Prep Date: | 11/8/2012 |        | Analysis Date: 11/12/2012 |             | SeqNo: 198392               |          | Units: mg/L |      |          |      |
| Analyte    | Result    | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Selenium   | ND        | 0.0025 |                           |             |                             |          |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4503    |         | SampType: MBLK            |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW        |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012 |         | Analysis Date: 10/24/2012 |             | SeqNo: 186274                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.00020 |                           |             |                                     |          |             |      |          |      |

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4503   |         | SampType: LCS             |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW       |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012 |         | Analysis Date: 10/24/2012 |             | SeqNo: 186276                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0048     | 0.00020 | 0.005000                  | 0           | 96.2                                | 80       | 120         |      |          |      |

|            |                |         |                           |             |                                     |          |             |      |          |      |
|------------|----------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210675-003BMS |         | SampType: ms              |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | BatchQC        |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012     |         | Analysis Date: 10/24/2012 |             | SeqNo: 186299                       |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0042         | 0.00020 | 0.005000                  | 0           | 83.0                                | 75       | 125         |      |          |      |

|            |                 |         |                |             |      |          |           |                           |             |      |  |
|------------|-----------------|---------|----------------|-------------|------|----------|-----------|---------------------------|-------------|------|--|
| Sample ID  | 1210675-003BMSD |         |                | SampType:   | msd  |          | TestCode: | EPA Method 245.1: Mercury |             |      |  |
| Client ID: | BatchQC         |         |                | Batch ID:   | 4503 |          | RunNo:    | 6470                      |             |      |  |
| Prep Date: | 10/24/2012      |         | Analysis Date: | 10/24/2012  |      | SeqNo:   | 186300    |                           | Units: mg/L |      |  |
| Analyte    | Result          | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD                      | RPDLimit    | Qual |  |
| Mercury    | 0.0040          | 0.00020 | 0.005000       | 0           | 80.1 | 75       | 125       | 3.62                      | 20          |      |  |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/13/2012 | SeqNo:      | 179591                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | ND     | 0.10           |            |             |                          |          |           |      |          |      |
| Chloride   | ND     | 0.50           |            |             |                          |          |           |      |          |      |
| Sulfate    | ND     | 0.50           |            |             |                          |          |           |      |          |      |

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS        | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/13/2012 | SeqNo:      | 179592                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 0.48   | 0.10           | 0.5000     | 0           | 95.5                     | 90       | 110       |      |          |      |
| Chloride   | 4.9    | 0.50           | 5.000      | 0           | 97.6                     | 90       | 110       |      |          |      |
| Sulfate    | 9.8    | 0.50           | 10.00      | 0           | 97.9                     | 90       | 110       |      |          |      |

|            |                  |                |            |             |                          |          |           |      |          |      |
|------------|------------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210676-008AMSx1 | SampType:      | MS         | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | BatchQC          | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |      |          |      |
| Prep Date: |                  | Analysis Date: | 10/13/2012 | SeqNo:      | 179594                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result           | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 4.9              | 1.0            | 5.000      | 0.3890      | 90.3                     | 76.6     | 110       |      |          |      |

|            |                  |                |            |             |                          |          |           |       |          |      |
|------------|------------------|----------------|------------|-------------|--------------------------|----------|-----------|-------|----------|------|
| Sample ID  | 1210676-008AMSDx | SampType:      | MSD        | TestCode:   | EPA Method 300.0: Anions |          |           |       |          |      |
| Client ID: | BatchQC          | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |       |          |      |
| Prep Date: |                  | Analysis Date: | 10/13/2012 | SeqNo:      | 179595                   | Units:   | mg/L      |       |          |      |
| Analyte    | Result           | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Fluoride   | 4.9              | 1.0            | 5.000      | 0.3890      | 90.1                     | 76.6     | 110       | 0.204 | 20       |      |

|            |                |                |            |             |                          |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210676-011AMS | SampType:      | MS         | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |      |          |      |
| Prep Date: |                | Analysis Date: | 10/13/2012 | SeqNo:      | 179603                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride   | 1.3            | 0.10           | 0.5000     | 1.108       | 33.5                     | 76.6     | 110       |      |          | S    |

|            |                 |                |            |             |                          |          |           |       |          |      |
|------------|-----------------|----------------|------------|-------------|--------------------------|----------|-----------|-------|----------|------|
| Sample ID  | 1210676-011AMSD | SampType:      | MSD        | TestCode:   | EPA Method 300.0: Anions |          |           |       |          |      |
| Client ID: | BatchQC         | Batch ID:      | R6232      | RunNo:      | 6232                     |          |           |       |          |      |
| Prep Date: |                 | Analysis Date: | 10/13/2012 | SeqNo:      | 179604                   | Units:   | mg/L      |       |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Fluoride   | 1.3             | 0.10           | 0.5000     | 1.108       | 34.3                     | 76.6     | 110       | 0.321 | 20       | S    |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R6279      | RunNo:      | 6279                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/16/2012 | SeqNo:      | 180866                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride   | ND     | 0.50           |            |             |                          |          |           |      |          |      |

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS        | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R6279      | RunNo:      | 6279                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/16/2012 | SeqNo:      | 180867                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride   | 4.7    | 0.50           | 5.000      | 0           | 94.5                     | 90       | 110       |      |          |      |

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R6279      | RunNo:      | 6279                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/17/2012 | SeqNo:      | 180926                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride   | ND     | 0.50           |            |             |                          |          |           |      |          |      |

|            |        |                |            |             |                          |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS    | SampType:      | LCS        | TestCode:   | EPA Method 300.0: Anions |          |           |      |          |      |
| Client ID: | LCSW   | Batch ID:      | R6279      | RunNo:      | 6279                     |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/17/2012 | SeqNo:      | 180927                   | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride   | 4.8    | 0.50           | 5.000      | 0           | 95.0                     | 90       | 110       |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |     |                           |             |                                          |          |             |      |          |      |
|--------------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-4284    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW        |     | Batch ID: 4284            |             | RunNo: 6179                              |          |             |      |          |      |
| Prep Date:                     | 10/12/2012 |     | Analysis Date: 10/12/2012 |             | SeqNo: 178640                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 1.0 |                           |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 5.0 |                           |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 1.1        |     | 1.000                     |             | 110                                      | 79.5     | 166         |      |          |      |

|                             |            |     |                           |             |                                          |          |             |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-4284   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW       |     | Batch ID: 4284            |             | RunNo: 6179                              |          |             |      |          |      |
| Prep Date:                  | 10/12/2012 |     | Analysis Date: 10/12/2012 |             | SeqNo: 178642                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 4.5        | 1.0 | 5.000                     | 0           | 89.4                                     | 74       | 157         |      |          |      |
| Surr: DNOP                  | 0.46       |     | 0.5000                    |             | 92.8                                     | 79.5     | 166         |      |          |      |

|                             |            |                           |           |             |                                          |          |             |      |          |      |
|-----------------------------|------------|---------------------------|-----------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCSD-4284  | SampType: LCSD            |           |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSS02     | Batch ID: 4284            |           |             | RunNo: 6179                              |          |             |      |          |      |
| Prep Date:                  | 10/12/2012 | Analysis Date: 10/12/2012 |           |             | SeqNo: 178643                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 4.2        | 1.0                       | 5.000     | 0           | 83.9                                     | 74       | 157         | 6.29 | 23       |      |
| Surr: DNOP                  | 0.51       |                           | 0.5000    |             | 103                                      | 79.5     | 166         | 0    | 0        |      |

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WO#: 1210660

19-Nov-12

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|                                |          |                           |           |             |                                       |          |             |      |          |      |
|--------------------------------|----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | 5ml rb-b | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                     | PBW      | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                     |          | Analysis Date: 10/17/2012 |           |             | SeqNo: 182455                         |          | Units: µg/L |      |          |      |
| Analyte                        | Result   | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Toluene                        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Naphthalene                    | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| 1-Methylnaphthalene            | ND       | 4.0                       |           |             |                                       |          |             |      |          |      |
| 2-Methylnaphthalene            | ND       | 4.0                       |           |             |                                       |          |             |      |          |      |
| Acetone                        | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Bromobenzene                   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromodichloromethane           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromoform                      | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromomethane                   | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Butanone                     | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon disulfide               | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chlorobenzene                  | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloroethane                   | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Chloroform                     | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloromethane                  | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Chlorotoluene                | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 4-Chlorotoluene                | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,2-DCE                    | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,3-Dichloropropene        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Dibromochloromethane           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Dibromomethane                 | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,4-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Dichlorodifluoromethane        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethane             | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloroethene             | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloropropane            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3-Dichloropropane            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 2,2-Dichloropropane            | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| 1,1-Dichloropropene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Hexachlorobutadiene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |          |                           |           |             |                                       |          |             |      |          |      |
|-----------------------------|----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 5ml rb-b | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | PBW      | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                  |          | Analysis Date: 10/17/2012 |           |             | SeqNo: 182455                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result   | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| 2-Hexanone                  | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Isopropylbenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 4-Isopropyltoluene          | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 4-Methyl-2-pentanone        | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Methylene Chloride          | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| n-Butylbenzene              | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| n-Propylbenzene             | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| sec-Butylbenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Styrene                     | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| tert-Butylbenzene           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Tetrachloroethene (PCE)     | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| trans-1,2-DCE               | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| trans-1,3-Dichloropropene   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,3-Trichlorobenzene      | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trichlorobenzene      | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1,1-Trichloroethane       | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,1,2-Trichloroethane       | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Trichloroethene (TCE)       | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Trichlorofluoromethane      | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,3-Trichloropropane      | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Vinyl chloride              | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Xylenes, Total              | ND       | 1.5                       |           |             |                                       |          |             |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 8.5      |                           | 10.00     |             | 84.6                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10       |                           | 10.00     |             | 102                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 8.8      |                           | 10.00     |             | 87.8                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 9.7      |                           | 10.00     |             | 97.3                                  | 70       | 130         |      |          |      |

|                             |           |                           |           |             |                                       |          |             |      |          |      |
|-----------------------------|-----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 100ng lcs | SampType: LCS             |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | LCSW      | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                  |           | Analysis Date: 10/17/2012 |           |             | SeqNo: 182457                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result    | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 23        | 1.0                       | 20.00     | 0           | 115                                   | 70       | 130         |      |          |      |
| Toluene                     | 21        | 1.0                       | 20.00     | 0           | 105                                   | 80       | 120         |      |          |      |
| Chlorobenzene               | 21        | 1.0                       | 20.00     | 0           | 105                                   | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 21        | 1.0                       | 20.00     | 0           | 107                                   | 73.7     | 122         |      |          |      |
| Trichloroethene (TCE)       | 19        | 1.0                       | 20.00     | 0           | 94.8                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.4       |                           | 10.00     |             | 93.6                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.9       |                           | 10.00     |             | 99.3                                  | 70       | 130         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |           |                           |           |             |                                       |          |             |      |          |      |
|----------------------------|-----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | 100ng lcs | SampType: LCS             |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                 | LCSW      | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                 |           | Analysis Date: 10/17/2012 |           |             | SeqNo: 182457                         |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 9.6       |                           | 10.00     |             | 95.7                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8           | 9.6       |                           | 10.00     |             | 96.4                                  | 70       | 130         |      |          |      |

|                             |                |                           |           |             |                                       |          |             |      |          |      |
|-----------------------------|----------------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 1210660-001ams | SampType: MS              |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | SWMU 1-24 GW   | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                  |                | Analysis Date: 10/17/2012 |           |             | SeqNo: 182459                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result         | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 130            | 5.0                       | 100.0     | 19.53       | 115                                   | 66.8     | 128         |      |          |      |
| Toluene                     | 120            | 5.0                       | 100.0     | 18.25       | 100                                   | 70       | 130         |      |          |      |
| Chlorobenzene               | 99             | 5.0                       | 100.0     | 0           | 98.8                                  | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 110            | 5.0                       | 100.0     | 0           | 109                                   | 70       | 130         |      |          |      |
| Trichloroethene (TCE)       | 94             | 5.0                       | 100.0     | 0           | 94.0                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45             |                           | 50.00     |             | 90.7                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 47             |                           | 50.00     |             | 94.9                                  | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 47             |                           | 50.00     |             | 94.8                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 47             |                           | 50.00     |             | 94.4                                  | 70       | 130         |      |          |      |

|                             |                 |                           |           |             |                                       |          |             |       |          |      |
|-----------------------------|-----------------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|-------|----------|------|
| Sample ID                   | 1210660-001amsd | SampType: MSD             |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |       |          |      |
| Client ID:                  | SWMU 1-24 GW    | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |       |          |      |
| Prep Date:                  |                 | Analysis Date: 10/17/2012 |           |             | SeqNo: 182460                         |          | Units: µg/L |       |          |      |
| Analyte                     | Result          | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Benzene                     | 130             | 5.0                       | 100.0     | 19.53       | 107                                   | 66.8     | 128         | 6.17  | 16.7     |      |
| Toluene                     | 110             | 5.0                       | 100.0     | 18.25       | 93.5                                  | 70       | 130         | 5.64  | 18.7     |      |
| Chlorobenzene               | 98              | 5.0                       | 100.0     | 0           | 98.5                                  | 70       | 130         | 0.270 | 19.5     |      |
| 1,1-Dichloroethene          | 100             | 5.0                       | 100.0     | 0           | 104                                   | 70       | 130         | 4.23  | 16.7     |      |
| Trichloroethene (TCE)       | 92              | 5.0                       | 100.0     | 0           | 91.9                                  | 70       | 130         | 2.26  | 17.5     |      |
| Surr: 1,2-Dichloroethane-d4 | 46              |                           | 50.00     |             | 92.4                                  | 70       | 130         | 0     | 0        |      |
| Surr: 4-Bromofluorobenzene  | 48              |                           | 50.00     |             | 96.8                                  | 70       | 130         | 0     | 0        |      |
| Surr: Dibromofluoromethane  | 47              |                           | 50.00     |             | 94.3                                  | 70       | 130         | 0     | 0        |      |
| Surr: Toluene-d8            | 47              |                           | 50.00     |             | 94.8                                  | 70       | 130         | 0     | 0        |      |

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# QC SUMMARY REPORT

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WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |     |                                  |             |                                                  |          |                    |      |          |      |
|-----------------------------|-------------------|-----|----------------------------------|-------------|--------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>mb-4322</b>    |     | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                    |      |          |      |
| Client ID:                  | <b>PBW</b>        |     | Batch ID: <b>4322</b>            |             | RunNo: <b>6287</b>                               |          |                    |      |          |      |
| Prep Date:                  | <b>10/16/2012</b> |     | Analysis Date: <b>10/16/2012</b> |             | SeqNo: <b>181174</b>                             |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                     | Result            | PQL | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Acenaphthylene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Aniline                     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Anthracene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Azobenzene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benz(a)anthracene           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(a)pyrene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(b)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(g,h,i)perylene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(k)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzoic acid                | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| Benzyl alcohol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethoxy)methane  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethyl)ether     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroisopropyl)ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Bromophenyl phenyl ether  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Butyl benzyl phthalate      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Carbazole                   | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloroaniline             | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chloronaphthalene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chlorophenol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Chrysene                    | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-butyl phthalate        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-octyl phthalate        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenzofuran                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Diethyl phthalate           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dimethyl phthalate          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dichlorophenol          | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dimethylphenol          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrophenol           | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |

### Qualifiers:

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R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                |            |             |                                 |          |           |      |          |      |
|----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                  | mb-4322    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                 | PBW        | Batch ID:      | 4322       | RunNo:      | 6287                            |          |           |      |          |      |
| Prep Date:                 | 10/16/2012 | Analysis Date: | 10/16/2012 | SeqNo:      | 181174                          | Units:   | µg/L      |      |          |      |
| Analyte                    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoranthene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Fluorene                   | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorobenzene          | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorobutadiene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorocyclopentadiene  | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachloroethane           | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Indeno(1,2,3-cd)pyrene     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Isophorone                 | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 1-Methylnaphthalene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Methylnaphthalene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Methylphenol             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 3+4-Methylphenol           | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodi-n-propylamine  | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodimethylamine     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodiphenylamine     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Naphthalene                | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 3-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 4-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Nitrobenzene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Nitrophenol              | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 4-Nitrophenol              | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pentachlorophenol          | ND         | 20             |            |             |                                 |          |           |      |          |      |
| Phenanthrene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Phenol                     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pyrene                     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pyridine                   | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 1,2,4-Trichlorobenzene     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2,4,5-Trichlorophenol      | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2,4,6-Trichlorophenol      | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Surr: 2,4,6-Tribromophenol | 140        |                | 200.0      |             | 71.8                            | 44.2     | 126       |      |          |      |
| Surr: 2-Fluorobiphenyl     | 86         |                | 100.0      |             | 86.2                            | 37       | 114       |      |          |      |
| Surr: 2-Fluorophenol       | 110        |                | 200.0      |             | 56.3                            | 23.4     | 98        |      |          |      |
| Surr: 4-Terphenyl-d14      | 76         |                | 100.0      |             | 75.8                            | 41.3     | 116       |      |          |      |
| Surr: Nitrobenzene-d5      | 98         |                | 100.0      |             | 97.6                            | 39.5     | 118       |      |          |      |
| Surr: Phenol-d5            | 100        |                | 200.0      |             | 52.2                            | 20.9     | 95.9      |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |             |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | Ics-4322   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |             |      |          |      |
| Client ID:                 | LCSW       | Batch ID: 4322            |           |             | RunNo: 6287                               |          |             |      |          |      |
| Prep Date:                 | 10/16/2012 | Analysis Date: 10/16/2012 |           |             | SeqNo: 181175                             |          | Units: µg/L |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Acenaphthene               | 77         | 10                        | 100.0     | 0           | 77.2                                      | 38.2     | 99.4        |      |          |      |
| 4-Chloro-3-methylphenol    | 170        | 10                        | 200.0     | 0           | 85.8                                      | 35.5     | 108         |      |          |      |
| 2-Chlorophenol             | 150        | 10                        | 200.0     | 0           | 74.2                                      | 29.8     | 106         |      |          |      |
| 1,4-Dichlorobenzene        | 57         | 10                        | 100.0     | 0           | 57.1                                      | 32.6     | 91.5        |      |          |      |
| 2,4-Dinitrotoluene         | 98         | 10                        | 100.0     | 0           | 98.4                                      | 44.7     | 112         |      |          |      |
| N-Nitrosodi-n-propylamine  | 89         | 10                        | 100.0     | 0           | 88.6                                      | 38.5     | 105         |      |          |      |
| 4-Nitrophenol              | 75         | 10                        | 200.0     | 0           | 37.6                                      | 11.6     | 73.1        |      |          |      |
| Pentachlorophenol          | 86         | 20                        | 200.0     | 0           | 42.8                                      | 20.2     | 93          |      |          |      |
| Phenol                     | 92         | 10                        | 200.0     | 0           | 46.2                                      | 23       | 66.1        |      |          |      |
| Pyrene                     | 76         | 10                        | 100.0     | 0           | 76.1                                      | 40.1     | 101         |      |          |      |
| 1,2,4-Trichlorobenzene     | 66         | 10                        | 100.0     | 0           | 65.6                                      | 37.7     | 99.1        |      |          |      |
| Surr: 2,4,6-Tribromophenol | 170        |                           | 200.0     |             | 85.9                                      | 44.2     | 126         |      |          |      |
| Surr: 2-Fluorobiphenyl     | 79         |                           | 100.0     |             | 78.9                                      | 37       | 114         |      |          |      |
| Surr: 2-Fluorophenol       | 120        |                           | 200.0     |             | 58.0                                      | 23.4     | 98          |      |          |      |
| Surr: 4-Terphenyl-d14      | 81         |                           | 100.0     |             | 80.7                                      | 41.3     | 116         |      |          |      |
| Surr: Nitrobenzene-d5      | 85         |                           | 100.0     |             | 84.6                                      | 39.5     | 118         |      |          |      |
| Surr: Phenol-d5            | 100        |                           | 200.0     |             | 52.3                                      | 20.9     | 95.9        |      |          |      |

|                            |            |     |                           |             |                                           |          |             |       |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|-------------|-------|----------|------|
| Sample ID                  | Icsd-4322  |     | SampType: LCSD            |             | TestCode: EPA Method 8270C: Semivolatiles |          |             |       |          |      |
| Client ID:                 | LCSS02     |     | Batch ID: 4322            |             | RunNo: 6287                               |          |             |       |          |      |
| Prep Date:                 | 10/16/2012 |     | Analysis Date: 10/16/2012 |             | SeqNo: 181176                             |          | Units: µg/L |       |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Acenaphthene               | 78         | 10  | 100.0                     | 0           | 77.9                                      | 38.2     | 99.4        | 0.980 | 20       |      |
| 4-Chloro-3-methylphenol    | 180        | 10  | 200.0                     | 0           | 88.1                                      | 35.5     | 108         | 2.61  | 20       |      |
| 2-Chlorophenol             | 150        | 10  | 200.0                     | 0           | 76.6                                      | 29.8     | 106         | 3.08  | 20       |      |
| 1,4-Dichlorobenzene        | 60         | 10  | 100.0                     | 0           | 59.6                                      | 32.6     | 91.5        | 4.28  | 20       |      |
| 2,4-Dinitrotoluene         | 110        | 10  | 100.0                     | 0           | 106                                       | 44.7     | 112         | 7.64  | 20       |      |
| N-Nitrosodi-n-propylamine  | 89         | 10  | 100.0                     | 0           | 88.7                                      | 38.5     | 105         | 0.113 | 20       |      |
| 4-Nitrophenol              | 100        | 10  | 200.0                     | 0           | 50.4                                      | 11.6     | 73.1        | 28.9  | 20       | R    |
| Pentachlorophenol          | 110        | 20  | 200.0                     | 0           | 55.0                                      | 20.2     | 93          | 25.2  | 20       | R    |
| Phenol                     | 97         | 10  | 200.0                     | 0           | 48.6                                      | 23       | 66.1        | 5.21  | 20       |      |
| Pyrene                     | 81         | 10  | 100.0                     | 0           | 81.0                                      | 40.1     | 101         | 6.19  | 20       |      |
| 1,2,4-Trichlorobenzene     | 66         | 10  | 100.0                     | 0           | 66.3                                      | 37.7     | 99.1        | 0.970 | 20       |      |
| Surr: 2,4,6-Tribromophenol | 190        |     | 200.0                     |             | 93.8                                      | 44.2     | 126         | 0     | 0        |      |
| Surr: 2-Fluorobiphenyl     | 82         |     | 100.0                     |             | 81.6                                      | 37       | 114         | 0     | 0        |      |
| Surr: 2-Fluorophenol       | 120        |     | 200.0                     |             | 60.8                                      | 23.4     | 98          | 0     | 0        |      |
| Surr: 4-Terphenyl-d14      | 78         |     | 100.0                     |             | 78.5                                      | 41.3     | 116         | 0     | 0        |      |
| Surr: Nitrobenzene-d5      | 86         |     | 100.0                     |             | 85.7                                      | 39.5     | 118         | 0     | 0        |      |
| Surr: Phenol-d5            | 110        |     | 200.0                     |             | 53.9                                      | 20.9     | 95.9        | 0     | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210660

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |                                  |       |                                                   |             |                    |          |           |      |          |      |
|-------------------------------|----------------------------------|-------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>b6</b>           | SampType: <b>MBLK</b>            |       | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>PBW</b>         | Batch ID: <b>R6394</b>           |       | RunNo: <b>6394</b>                                |             |                    |          |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>10/20/2012</b> |       | SeqNo: <b>184074</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                       | Result                           | PQL   | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                               | 0.050 |                                                   |             |                    |          |           |      |          |      |
| Surr: BFB                     | 9.6                              |       | 10.00                                             |             | 95.8               | 70       | 130       |      |          |      |

|                                |                                  |       |                                                   |             |                    |          |           |      |          |      |
|--------------------------------|----------------------------------|-------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>2.5ug gro lcs</b> | SampType: <b>LCS</b>             |       | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>LCSW</b>         | Batch ID: <b>R6394</b>           |       | RunNo: <b>6394</b>                                |             |                    |          |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>10/19/2012</b> |       | SeqNo: <b>184077</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                        | Result                           | PQL   | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 0.43                             | 0.050 | 0.5000                                            | 0           | 86.2               | 85       | 115       |      |          |      |
| Surr: BFB                      | 10                               |       | 10.00                                             |             | 99.9               | 70       | 130       |      |          |      |

|                                 |                                  |      |                                                   |             |                    |          |           |      |          |      |
|---------------------------------|----------------------------------|------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>1210660-001ams</b> | SampType: <b>MS</b>              |      | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>SWMU 1-24 GW</b>  | Batch ID: <b>R6394</b>           |      | RunNo: <b>6394</b>                                |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/20/2012</b> |      | SeqNo: <b>184078</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                           | PQL  | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)   | 4.0                              | 0.25 | 2.500                                             | 1.915       | 82.1               | 70       | 130       |      |          |      |
| Surr: BFB                       | 46                               |      | 50.00                                             |             | 91.6               | 70       | 130       |      |          |      |

|                                  |                                  |      |                                                   |             |                    |          |           |      |          |      |
|----------------------------------|----------------------------------|------|---------------------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Sample ID <b>1210660-001amsd</b> | SampType: <b>MSD</b>             |      | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |             |                    |          |           |      |          |      |
| Client ID: <b>SWMU 1-24 GW</b>   | Batch ID: <b>R6394</b>           |      | RunNo: <b>6394</b>                                |             |                    |          |           |      |          |      |
| Prep Date:                       | Analysis Date: <b>10/20/2012</b> |      | SeqNo: <b>184079</b>                              |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                          | Result                           | PQL  | SPK value                                         | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)    | 3.8                              | 0.25 | 2.500                                             | 1.915       | 76.4               | 70       | 130       | 3.70 | 20       |      |
| Surr: BFB                        | 51                               |      | 50.00                                             |             | 102                | 70       | 130       | 0    | 0        |      |

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1210660

Received by/date: *MG* 10/12/12

Logged By: Michelle Garcia

10/12/2012 8:00:00 AM

*Michelle Garcia*

Completed By: Michelle Garcia

10/12/2012 9:45:55 AM

*Michelle Garcia*

Reviewed By: *MG* *AS*

10/12/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
10. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

Adjusted?

Checked by: *[Signature]*

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: \_\_\_\_\_

eMail \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

In Person \_\_\_\_\_

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

18. Additional remarks:

### 19. Cooler Information

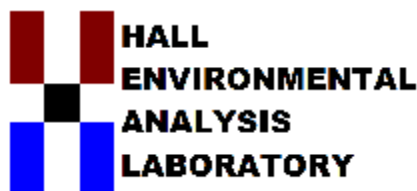
| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0     | Good      | Yes         |         |           |           |





| Rpt                                 | T | Analyte              | Units | Synonym | MDL     | LOD | LOQ |
|-------------------------------------|---|----------------------|-------|---------|---------|-----|-----|
| <input type="checkbox"/>            | A | Aluminum             | mg/Kg |         | 0.4481  | 0   |     |
| <input checked="" type="checkbox"/> | A | Antimony             | mg/Kg |         | 0.629   | 0   |     |
| <input checked="" type="checkbox"/> | A | Arsenic              | mg/Kg |         | 0.6263  | 0   |     |
| <input checked="" type="checkbox"/> | A | Barium               | mg/Kg |         | 0.0609  | 0   |     |
| <input checked="" type="checkbox"/> | A | Beryllium            | mg/Kg |         | 0.0093  | 0   |     |
| <input type="checkbox"/>            | A | Boron                | mg/Kg |         | 0.0826  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cadmium              | mg/Kg |         | 0.0271  | 0   |     |
| <input type="checkbox"/>            | A | Calcium              | mg/Kg |         | 6.9713  | 0   |     |
| <input checked="" type="checkbox"/> | A | Chromium             | mg/Kg |         | 0.1184  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cobalt               | mg/Kg |         | 0.0689  | 0   |     |
| <input type="checkbox"/>            | A | Copper               | mg/Kg |         | 0.2323  | 0   |     |
| <input checked="" type="checkbox"/> | A | Iron                 | mg/Kg |         | 0.7476  | 0   |     |
| <input checked="" type="checkbox"/> | A | Lead                 | mg/Kg |         | 0.2194  | 0   |     |
| <input type="checkbox"/>            | A | Magnesium            | mg/Kg |         | 0.4651  | 0   |     |
| <input checked="" type="checkbox"/> | A | Manganese            | mg/Kg |         | 0.0212  | 0   |     |
| <input type="checkbox"/>            | A | Molybdenum           | mg/Kg |         | 0.1423  | 0   |     |
| <input checked="" type="checkbox"/> | A | Nickel               | mg/Kg |         | 0.1668  | 0   |     |
| <input type="checkbox"/>            | A | Potassium            | mg/Kg |         | 17.3925 | 0   |     |
| <input checked="" type="checkbox"/> | A | Selenium             | mg/Kg |         | 1.4025  | 0   |     |
| <input checked="" type="checkbox"/> | A | Silver               | mg/Kg |         | 0.0354  | 0   |     |
| <input type="checkbox"/>            | A | Sodium               | mg/Kg |         | 8.4278  | 0   |     |
| <input type="checkbox"/>            | A | Thallium             | mg/Kg |         | 1.1557  | 0   |     |
| <input type="checkbox"/>            | A | Tin                  | mg/Kg |         | 0.8261  | 0   |     |
| <input type="checkbox"/>            | A | Titanium             | mg/Kg |         | 0.0342  | 0   |     |
| <input type="checkbox"/>            | A | Uranium              | mg/Kg |         | 0.7296  | 0   |     |
| <input checked="" type="checkbox"/> | A | Vanadium             | mg/Kg |         | 0.0565  | 0   |     |
| <input checked="" type="checkbox"/> | A | Zinc                 | mg/Kg |         | 1.0066  | 0   |     |
| <input type="checkbox"/>            | I | Yttrium              | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | I | Yttrium Radial       | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Uranium-confirmation | mg/Kg |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Silicon              | mg/Kg |         | 0       | 0   |     |

+ Hg  
+ Cu  
+ Anions



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 19, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210692

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 29 sample(s) on 10/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-001

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 2:24:10 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 2:24:10 PM |
| Surr: DNOP                                     | 92.3   | 77.6-140 |      | %REC  | 1   | 10/16/2012 2:24:10 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.038  | 0.033    |      | mg/kg | 1   | 10/23/2012 4:41:09 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Barium                                         | 740    | 2.0      |      | mg/Kg | 20  | 11/2/2012 7:24:51 AM  |
| Beryllium                                      | 0.71   | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Chromium                                       | 19     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Iron                                           | 15000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:27:16 AM  |
| Lead                                           | 2.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Manganese                                      | 650    | 2.0      |      | mg/Kg | 20  | 11/2/2012 7:24:51 AM  |
| Nickel                                         | 6.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Vanadium                                       | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| Zinc                                           | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:11:00 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:10:04 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-001

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-001

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:10:04 AM |
| Surr: 2,4,6-Tribromophenol             | 54.6    | 21.3-145 |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| Surr: 2-Fluorobiphenyl                 | 62.8    | 20-131   |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| Surr: 2-Fluorophenol                   | 50.4    | 11.9-130 |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| Surr: 4-Terphenyl-d14                  | 67.4    | 25.1-149 |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| Surr: Nitrobenzene-d5                  | 65.1    | 25.6-137 |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| Surr: Phenol-d5                        | 54.6    | 20.3-132 |      | %REC  | 1  | 10/21/2012 7:10:04 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00137 | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Toluene                                | 0.00197 | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Ethylbenzene                           | 0.0448  | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Xylenes, Total                         | 0.279   | 0.00162  | E    | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2,4-Trimethylbenzene                 | 0.00140 | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Naphthalene                            | ND      | 0.00162  |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1-Methylnaphthalene                    | ND      | 0.00324  |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 2-Methylnaphthalene                    | ND      | 0.00324  |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Acetone                                | 3.31    | 0.00810  | E    | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Bromobenzene                           | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Bromodichloromethane                   | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Bromoform                              | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Bromomethane                           | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 2-Butanone                             | 0.0220  | 0.00810  |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Carbon tetrachloride                   | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Chlorobenzene                          | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Chloroethane                           | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Chloroform                             | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Chloromethane                          | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 2-Chlorotoluene                        | ND      | 0.000810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-001

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 4-Chlorotoluene                        | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| cis-1,2-DCE                            | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| cis-1,3-Dichloropropene                | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2-Dibromo-3-chloropropane            | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Dibromochloromethane                   | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Dibromomethane                         | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2-Dichlorobenzene                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,3-Dichlorobenzene                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,4-Dichlorobenzene                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Dichlorodifluoromethane                | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1-Dichloroethane                     | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1-Dichloroethene                     | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2-Dichloropropane                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,3-Dichloropropane                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 2,2-Dichloropropane                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1-Dichloropropene                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Hexachlorobutadiene                    | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Isopropylbenzene                       | 0.00210 | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 4-Isopropyltoluene                     | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Methylene chloride                     | ND      | 0.00243 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| n-Butylbenzene                         | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 2-Hexanone                             | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| n-Propylbenzene                        | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| sec-Butylbenzene                       | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Styrene                                | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 4-Methyl-2-pentanone                   | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| tert-Butylbenzene                      | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1,1,2-Tetrachloroethane              | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1,2,2-Tetrachloroethane              | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Tetrachloroethene (PCE)                | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| trans-1,2-DCE                          | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| trans-1,3-Dichloropropene              | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2,3-Trichlorobenzene                 | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1,1-Trichloroethane                  | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,1,2-Trichloroethane                  | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Trichloroethene (TCE)                  | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Trichlorofluoromethane                 | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| 1,2,3-Trichloropropane                 | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Vinyl chloride                         | ND      | 0.00810 |      | mg/Kg | 1  | 10/15/2012 1:49:48 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.1    | 70-130  |      | %REC  | 1  | 10/15/2012 1:49:48 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-001

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 105    | 70-130 |      | %REC  | 1  | 10/15/2012 1:49:48 PM |
| Surr: Dibromofluoromethane                  | 100    | 70-130 |      | %REC  | 1  | 10/15/2012 1:49:48 PM |
| Surr: Toluene-d8                            | 87.1   | 70-130 |      | %REC  | 1  | 10/15/2012 1:49:48 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 2:47:27 PM |
| Surr: BFB                                   | 88.8   | 70-130 |      | %REC  | 1  | 10/21/2012 2:47:27 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-002

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 2:49:37 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 2:49:37 PM |
| Surr: DNOP                                     | 93.8   | 77.6-140 |      | %REC  | 1   | 10/16/2012 2:49:37 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.037  | 0.033    |      | mg/kg | 1   | 10/23/2012 4:42:56 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Arsenic                                        | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Barium                                         | 840    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:49:13 AM  |
| Beryllium                                      | 0.94   | 0.75     |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Chromium                                       | 23     | 1.5      |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Cobalt                                         | 5.4    | 1.5      |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Iron                                           | 19000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:51:40 AM  |
| Lead                                           | 3.4    | 1.3      |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Manganese                                      | 680    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:49:13 AM  |
| Nickel                                         | 8.5    | 2.5      |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Selenium                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Vanadium                                       | 32     | 13       |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| Zinc                                           | 28     | 13       |      | mg/Kg | 5   | 11/2/2012 7:30:09 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 7:38:49 AM |

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-002

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-002

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 7:38:49 AM |
| Surr: 2,4,6-Tribromophenol             | 47.1    | 21.3-145 |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| Surr: 2-Fluorobiphenyl                 | 54.9    | 20-131   |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| Surr: 2-Fluorophenol                   | 42.7    | 11.9-130 |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| Surr: 4-Terphenyl-d14                  | 59.1    | 25.1-149 |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| Surr: Nitrobenzene-d5                  | 50.0    | 25.6-137 |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| Surr: Phenol-d5                        | 44.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 7:38:49 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00188 | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Toluene                                | 0.00386 | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Ethylbenzene                           | 0.0622  | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Xylenes, Total                         | 0.379   | 0.00246  | E    | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2,4-Trimethylbenzene                 | 0.00184 | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Naphthalene                            | ND      | 0.00246  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1-Methylnaphthalene                    | ND      | 0.00491  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 2-Methylnaphthalene                    | ND      | 0.00491  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Acetone                                | 3.98    | 0.0123   |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Bromobenzene                           | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Bromodichloromethane                   | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Bromoform                              | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Bromomethane                           | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 2-Butanone                             | 0.0314  | 0.0123   |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Carbon tetrachloride                   | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Chlorobenzene                          | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Chloroethane                           | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Chloroform                             | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Chloromethane                          | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 2-Chlorotoluene                        | ND      | 0.00123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-002

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND      | 0.0123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 4-Chlorotoluene                        | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| cis-1,2-DCE                            | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| cis-1,3-Dichloropropene                | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2-Dibromo-3-chloropropane            | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Dibromochloromethane                   | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Dibromomethane                         | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2-Dichlorobenzene                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,3-Dichlorobenzene                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,4-Dichlorobenzene                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Dichlorodifluoromethane                | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1-Dichloroethane                     | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1-Dichloroethene                     | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2-Dichloropropane                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,3-Dichloropropane                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 2,2-Dichloropropane                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1-Dichloropropene                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Hexachlorobutadiene                    | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Isopropylbenzene                       | 0.00282 | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 4-Isopropyltoluene                     | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Methylene chloride                     | ND      | 0.00368 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| n-Butylbenzene                         | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 2-Hexanone                             | ND      | 0.0123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| n-Propylbenzene                        | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| sec-Butylbenzene                       | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Styrene                                | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 4-Methyl-2-pentanone                   | ND      | 0.0123  |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| tert-Butylbenzene                      | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1,1,2-Tetrachloroethane              | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1,2,2-Tetrachloroethane              | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Tetrachloroethene (PCE)                | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| trans-1,2-DCE                          | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| trans-1,3-Dichloropropene              | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2,3-Trichlorobenzene                 | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1,1-Trichloroethane                  | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,1,2-Trichloroethane                  | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Trichloroethene (TCE)                  | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Trichlorofluoromethane                 | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| 1,2,3-Trichloropropane                 | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Vinyl chloride                         | ND      | 0.00123 |      | mg/Kg | 1  | 10/15/2012 2:20:41 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.6    | 70-130  |      | %REC  | 1  | 10/15/2012 2:20:41 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:20:00 PM

**Lab ID:** 1210692-002

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 97.5   | 70-130 |      | %REC  | 1  | 10/15/2012 2:20:41 PM |
| Surr: Dibromofluoromethane                  | 106    | 70-130 |      | %REC  | 1  | 10/15/2012 2:20:41 PM |
| Surr: Toluene-d8                            | 91.2   | 70-130 |      | %REC  | 1  | 10/15/2012 2:20:41 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 3:44:56 PM |
| Surr: BFB                                   | 95.6   | 70-130 |      | %REC  | 1  | 10/21/2012 3:44:56 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-20 (1.5-2')

Project: SWMU NO.1

Collection Date: 10/11/2012 12:30:00 PM

Lab ID: 1210692-003

Matrix: SOIL

Received Date: 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.8      |      | mg/Kg | 1   | 10/16/2012 9:09:09 AM  |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/16/2012 9:09:09 AM  |
| Surr: DNOP                                     | 92.1   | 77.6-140 |      | %REC  | 1   | 10/16/2012 9:09:09 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 4:44:45 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Arsenic                                        | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Barium                                         | 1000   | 5.0      |      | mg/Kg | 50  | 11/2/2012 10:25:25 AM  |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Chromium                                       | 11     | 1.5      |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Cobalt                                         | 4.7    | 1.5      |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Iron                                           | 16000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:56:46 AM   |
| Lead                                           | 3.9    | 1.3      |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Manganese                                      | 950    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:54:19 AM   |
| Nickel                                         | 7.3    | 2.5      |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Selenium                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Vanadium                                       | 29     | 13       |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| Zinc                                           | 17     | 13       |      | mg/Kg | 5   | 11/2/2012 7:32:33 AM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:31:33 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:30:00 PM

**Lab ID:** 1210692-003

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |

**Qualifiers:**

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- E Value above quantitation range
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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:30:00 PM

**Lab ID:** 1210692-003

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:31:33 AM |
| Surr: 2,4,6-Tribromophenol             | 69.5    | 21.3-145 |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| Surr: 2-Fluorobiphenyl                 | 82.1    | 20-131   |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| Surr: 2-Fluorophenol                   | 60.1    | 11.9-130 |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| Surr: 4-Terphenyl-d14                  | 71.6    | 25.1-149 |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| Surr: Nitrobenzene-d5                  | 75.8    | 25.6-137 |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| Surr: Phenol-d5                        | 68.9    | 20.3-132 |      | %REC  | 1  | 10/21/2012 12:31:33 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00151 | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Toluene                                | 0.00105 | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Ethylbenzene                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Xylenes, Total                         | ND      | 0.00180  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Naphthalene                            | ND      | 0.00180  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00360  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00360  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Acetone                                | 0.119   | 0.00899  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Bromobenzene                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Bromodichloromethane                   | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Bromoform                              | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Bromomethane                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 2-Butanone                             | ND      | 0.00899  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Carbon tetrachloride                   | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Chlorobenzene                          | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Chloroethane                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Chloroform                             | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| Chloromethane                          | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |
| 2-Chlorotoluene                        | ND      | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:30:00 PM

**Lab ID:** 1210692-003

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00899  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 4-Chlorotoluene                        | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| cis-1,2-DCE                            | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Dibromochloromethane                   | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Dibromomethane                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Dichlorodifluoromethane                | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1-Dichloroethane                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1-Dichloroethene                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,3-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 2,2-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1-Dichloropropene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Hexachlorobutadiene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Isopropylbenzene                       | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 4-Isopropyltoluene                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Methylene chloride                     | ND     | 0.00270  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| n-Butylbenzene                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 2-Hexanone                             | ND     | 0.00899  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| n-Propylbenzene                        | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| sec-Butylbenzene                       | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Styrene                                | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00899  |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| tert-Butylbenzene                      | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| trans-1,2-DCE                          | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Trichloroethene (TCE)                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Trichlorofluoromethane                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Vinyl chloride                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/15/2012 2:51:33 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.4   | 70-130   |      | %REC  | 1  | 10/15/2012 2:51:33 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:30:00 PM

**Lab ID:** 1210692-003

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 97.8   | 70-130 |      | %REC  | 1  | 10/15/2012 2:51:33 PM |
| Surr: Dibromofluoromethane                  | 103    | 70-130 |      | %REC  | 1  | 10/15/2012 2:51:33 PM |
| Surr: Toluene-d8                            | 102    | 70-130 |      | %REC  | 1  | 10/15/2012 2:51:33 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 4:13:44 PM |
| Surr: BFB                                   | 88.8   | 70-130 |      | %REC  | 1  | 10/21/2012 4:13:44 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:45:00 PM

**Lab ID:** 1210692-004

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 10:45:38 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 10:45:38 AM |
| Surr: DNOP                                     | 91.9   | 77.6-140 |      | %REC  | 1   | 10/16/2012 10:45:38 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 4:46:30 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Barium                                         | 190    | 1.0      |      | mg/Kg | 10  | 11/2/2012 7:35:01 AM   |
| Beryllium                                      | 0.97   | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Chromium                                       | 10     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Cobalt                                         | 4.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Iron                                           | 17000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:37:27 AM   |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Manganese                                      | 330    | 1.0      |      | mg/Kg | 10  | 11/2/2012 7:35:01 AM   |
| Nickel                                         | 8.6    | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| Zinc                                           | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:36:54 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:00:43 AM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:45:00 PM

**Lab ID:** 1210692-004

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:45:00 PM

**Lab ID:** 1210692-004

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:00:43 AM |
| Surr: 2,4,6-Tribromophenol             | 77.8    | 21.3-145 |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| Surr: 2-Fluorobiphenyl                 | 83.8    | 20-131   |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| Surr: 2-Fluorophenol                   | 74.4    | 11.9-130 |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| Surr: 4-Terphenyl-d14                  | 74.4    | 25.1-149 |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| Surr: Nitrobenzene-d5                  | 90.8    | 25.6-137 |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| Surr: Phenol-d5                        | 85.2    | 20.3-132 |      | %REC  | 1  | 10/21/2012 1:00:43 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00321 | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Toluene                                | 0.00205 | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Ethylbenzene                           | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Xylenes, Total                         | ND      | 0.00150  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Naphthalene                            | ND      | 0.00150  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1-Methylnaphthalene                    | ND      | 0.00299  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 2-Methylnaphthalene                    | ND      | 0.00299  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Acetone                                | 0.0242  | 0.00748  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Bromobenzene                           | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Bromodichloromethane                   | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Bromoform                              | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Bromomethane                           | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 2-Butanone                             | ND      | 0.00748  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Carbon tetrachloride                   | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Chlorobenzene                          | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Chloroethane                           | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Chloroform                             | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Chloromethane                          | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 2-Chlorotoluene                        | ND      | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-20 (4-6')

Project: SWMU NO.1

Collection Date: 10/11/2012 12:45:00 PM

Lab ID: 1210692-004

Matrix: SOIL

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00748  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 4-Chlorotoluene                        | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| cis-1,2-DCE                            | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Dibromochloromethane                   | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Dibromomethane                         | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Dichlorodifluoromethane                | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1-Dichloroethane                     | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1-Dichloroethene                     | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2-Dichloropropane                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,3-Dichloropropane                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 2,2-Dichloropropane                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1-Dichloropropene                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Hexachlorobutadiene                    | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Isopropylbenzene                       | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 4-Isopropyltoluene                     | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Methylene chloride                     | ND     | 0.00224  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| n-Butylbenzene                         | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 2-Hexanone                             | ND     | 0.00748  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| n-Propylbenzene                        | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| sec-Butylbenzene                       | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Styrene                                | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00748  |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| tert-Butylbenzene                      | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| trans-1,2-DCE                          | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Trichloroethene (TCE)                  | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Trichlorofluoromethane                 | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Vinyl chloride                         | ND     | 0.000748 |      | mg/Kg | 1  | 10/15/2012 3:22:21 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.1   | 70-130   |      | %REC  | 1  | 10/15/2012 3:22:21 PM |

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 12:45:00 PM

**Lab ID:** 1210692-004

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 88.1   | 70-130 |      | %REC  | 1  | 10/15/2012 3:22:21 PM |
| Surr: Dibromofluoromethane                  | 104    | 70-130 |      | %REC  | 1  | 10/15/2012 3:22:21 PM |
| Surr: Toluene-d8                            | 87.0   | 70-130 |      | %REC  | 1  | 10/15/2012 3:22:21 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 4:42:26 PM |
| Surr: BFB                                   | 90.3   | 70-130 |      | %REC  | 1  | 10/21/2012 4:42:26 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (10-12')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 1:00:00 PM

**Lab ID:** 1210692-005

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 11:07:11 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 11:07:11 AM |
| Surr: DNOP                                     | 91.5   | 77.6-140 |      | %REC  | 1   | 10/16/2012 11:07:11 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: <b>IDC</b>    |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 4:48:16 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: <b>JLF</b>    |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Barium                                         | 1100   | 5.0      |      | mg/Kg | 50  | 11/2/2012 9:59:37 AM   |
| Beryllium                                      | 1.0    | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Cobalt                                         | 5.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Iron                                           | 18000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:42:48 AM   |
| Lead                                           | 1.5    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Manganese                                      | 540    | 2.0      |      | mg/Kg | 20  | 11/2/2012 7:40:21 AM   |
| Nickel                                         | 12     | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Vanadium                                       | 21     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| Zinc                                           | 24     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:45:32 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: <b>JDC</b>    |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:29:49 AM  |

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (10-12')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 1:00:00 PM

**Lab ID:** 1210692-005

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (10-12')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 1:00:00 PM

**Lab ID:** 1210692-005

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:29:49 AM |
| Surr: 2,4,6-Tribromophenol             | 57.4    | 21.3-145 |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| Surr: 2-Fluorobiphenyl                 | 64.7    | 20-131   |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| Surr: 2-Fluorophenol                   | 53.2    | 11.9-130 |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| Surr: 4-Terphenyl-d14                  | 59.7    | 25.1-149 |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| Surr: Nitrobenzene-d5                  | 63.1    | 25.6-137 |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| Surr: Phenol-d5                        | 61.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 1:29:49 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00791 | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Toluene                                | 0.00372 | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Ethylbenzene                           | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Xylenes, Total                         | ND      | 0.00188  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Naphthalene                            | ND      | 0.00188  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1-Methylnaphthalene                    | ND      | 0.00376  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 2-Methylnaphthalene                    | ND      | 0.00376  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Acetone                                | 0.0217  | 0.00939  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Bromobenzene                           | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Bromodichloromethane                   | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Bromoform                              | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Bromomethane                           | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 2-Butanone                             | ND      | 0.00939  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Carbon tetrachloride                   | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Chlorobenzene                          | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Chloroethane                           | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Chloroform                             | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Chloromethane                          | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 2-Chlorotoluene                        | ND      | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-20 (10-12')

Project: SWMU NO.1

Collection Date: 10/11/2012 1:00:00 PM

Lab ID: 1210692-005

Matrix: SOIL

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00939  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 4-Chlorotoluene                        | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| cis-1,2-DCE                            | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Dibromochloromethane                   | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Dibromomethane                         | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Dichlorodifluoromethane                | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1-Dichloroethane                     | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1-Dichloroethene                     | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2-Dichloropropane                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,3-Dichloropropane                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 2,2-Dichloropropane                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1-Dichloropropene                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Hexachlorobutadiene                    | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Isopropylbenzene                       | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 4-Isopropyltoluene                     | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Methylene chloride                     | ND     | 0.00282  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| n-Butylbenzene                         | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 2-Hexanone                             | ND     | 0.00939  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| n-Propylbenzene                        | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| sec-Butylbenzene                       | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Styrene                                | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00939  |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| tert-Butylbenzene                      | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| trans-1,2-DCE                          | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Trichloroethene (TCE)                  | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Trichlorofluoromethane                 | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Vinyl chloride                         | ND     | 0.000939 |      | mg/Kg | 1  | 10/15/2012 3:53:08 PM |
| Surr: 1,2-Dichloroethane-d4            | 95.1   | 70-130   |      | %REC  | 1  | 10/15/2012 3:53:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-20 (10-12')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 1:00:00 PM

**Lab ID:** 1210692-005

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 109    | 70-130 |      | %REC  | 1  | 10/15/2012 3:53:08 PM |
| Surr: Dibromofluoromethane                  | 111    | 70-130 |      | %REC  | 1  | 10/15/2012 3:53:08 PM |
| Surr: Toluene-d8                            | 86.4   | 70-130 |      | %REC  | 1  | 10/15/2012 3:53:08 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 5:10:49 PM |
| Surr: BFB                                   | 93.2   | 70-130 |      | %REC  | 1  | 10/21/2012 5:10:49 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:20:00 PM

**Lab ID:** 1210692-006

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 4:11:59 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 4:11:59 PM  |
| Surr: DNOP                                     | 97.6   | 77.6-140 |      | %REC  | 1   | 10/16/2012 4:11:59 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.080  | 0.033    |      | mg/kg | 1   | 10/23/2012 4:50:01 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Barium                                         | 360    | 2.0      |      | mg/Kg | 20  | 11/2/2012 7:45:41 AM   |
| Beryllium                                      | 0.70   | 0.30     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Chromium                                       | 24     | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Cobalt                                         | 3.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:58:27 AM   |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Manganese                                      | 480    | 2.0      |      | mg/Kg | 20  | 11/2/2012 7:45:41 AM   |
| Nickel                                         | 7.7    | 1.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| Zinc                                           | 34     | 5.0      |      | mg/Kg | 2   | 10/25/2012 9:51:21 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzoic acid                                   | ND     | 0.51     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.51     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 10:32:27 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:20:00 PM

**Lab ID:** 1210692-006

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4-Chloroaniline                        | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Di-n-butyl phthalate                   | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Isophorone                             | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2-Methylphenol                         | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Nitrobenzene                           | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:20:00 PM

**Lab ID:** 1210692-006

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Pyridine                               | ND      | 0.51     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 10:32:27 AM |
| Surr: 2,4,6-Tribromophenol             | 102     | 21.3-145 |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| Surr: 2-Fluorobiphenyl                 | 96.5    | 20-131   |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| Surr: 2-Fluorophenol                   | 90.4    | 11.9-130 |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| Surr: 4-Terphenyl-d14                  | 86.0    | 25.1-149 |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| Surr: Nitrobenzene-d5                  | 97.6    | 25.6-137 |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| Surr: Phenol-d5                        | 87.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 10:32:27 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00204 | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Toluene                                | 0.00190 | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Ethylbenzene                           | 0.00165 | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Xylenes, Total                         | 0.00901 | 0.00169  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Naphthalene                            | ND      | 0.00169  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00339  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00339  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Acetone                                | 0.156   | 0.00847  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Bromobenzene                           | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Bromodichloromethane                   | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Bromoform                              | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Bromomethane                           | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 2-Butanone                             | ND      | 0.00847  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Carbon tetrachloride                   | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Chlorobenzene                          | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Chloroethane                           | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Chloroform                             | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| Chloromethane                          | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |
| 2-Chlorotoluene                        | ND      | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:20:00 PM

**Lab ID:** 1210692-006

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00847  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 4-Chlorotoluene                        | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| cis-1,2-DCE                            | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Dibromochloromethane                   | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Dibromomethane                         | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Dichlorodifluoromethane                | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1-Dichloroethane                     | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1-Dichloroethene                     | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2-Dichloropropane                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,3-Dichloropropane                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 2,2-Dichloropropane                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1-Dichloropropene                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Hexachlorobutadiene                    | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Isopropylbenzene                       | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 4-Isopropyltoluene                     | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Methylene chloride                     | ND     | 0.00254  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| n-Butylbenzene                         | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 2-Hexanone                             | ND     | 0.00847  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| n-Propylbenzene                        | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| sec-Butylbenzene                       | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Styrene                                | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00847  |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| tert-Butylbenzene                      | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| trans-1,2-DCE                          | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Trichloroethene (TCE)                  | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Trichlorofluoromethane                 | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Vinyl chloride                         | ND     | 0.000847 |      | mg/Kg | 1  | 10/15/2012 4:23:53 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.0   | 70-130   |      | %REC  | 1  | 10/15/2012 4:23:53 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:20:00 PM

**Lab ID:** 1210692-006

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 127    | 70-130 |      | %REC  | 1  | 10/15/2012 4:23:53 PM |
| Surr: Dibromofluoromethane                  | 106    | 70-130 |      | %REC  | 1  | 10/15/2012 4:23:53 PM |
| Surr: Toluene-d8                            | 90.5   | 70-130 |      | %REC  | 1  | 10/15/2012 4:23:53 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 5:39:04 PM |
| Surr: BFB                                   | 91.5   | 70-130 |      | %REC  | 1  | 10/21/2012 5:39:04 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:30:00 PM

**Lab ID:** 1210692-007

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 3:15:01 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 3:15:01 PM  |
| Surr: DNOP                                     | 95.9   | 77.6-140 |      | %REC  | 1   | 10/16/2012 3:15:01 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 4:51:46 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Barium                                         | 81     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Beryllium                                      | 0.84   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Cobalt                                         | 4.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Iron                                           | 20000  | 500      |      | mg/Kg | 500 | 11/2/2012 8:03:45 AM   |
| Lead                                           | 3.2    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Manganese                                      | 600    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:01:20 AM   |
| Nickel                                         | 8.5    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Vanadium                                       | 30     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| Zinc                                           | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:07:42 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 8:36:22 AM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:30:00 PM

**Lab ID:** 1210692-007

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Di-n-octyl phthalate                   | ND     | 0.81 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4-Dichlorophenol                     | ND     | 0.81 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4-Dinitrophenol                      | ND     | 0.81 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4-Nitroaniline                         | ND     | 0.81 |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:30:00 PM

**Lab ID:** 1210692-007

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Pentachlorophenol                      | ND      | 0.81     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 8:36:22 AM |
| Surr: 2,4,6-Tribromophenol             | 82.3    | 21.3-145 |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| Surr: 2-Fluorobiphenyl                 | 82.4    | 20-131   |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| Surr: 2-Fluorophenol                   | 74.9    | 11.9-130 |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| Surr: 4-Terphenyl-d14                  | 79.4    | 25.1-149 |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| Surr: Nitrobenzene-d5                  | 84.4    | 25.6-137 |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| Surr: Phenol-d5                        | 80.7    | 20.3-132 |      | %REC  | 1  | 10/21/2012 8:36:22 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00122 | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Toluene                                | 0.00114 | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Ethylbenzene                           | 0.00135 | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Xylenes, Total                         | 0.00793 | 0.00158  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Naphthalene                            | ND      | 0.00158  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1-Methylnaphthalene                    | ND      | 0.00316  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 2-Methylnaphthalene                    | ND      | 0.00316  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Acetone                                | 0.158   | 0.00789  | E    | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Bromobenzene                           | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Bromodichloromethane                   | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Bromoform                              | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Bromomethane                           | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 2-Butanone                             | 0.0138  | 0.00789  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Carbon tetrachloride                   | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Chlorobenzene                          | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Chloroethane                           | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Chloroform                             | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Chloromethane                          | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 2-Chlorotoluene                        | ND      | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:30:00 PM

**Lab ID:** 1210692-007

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00789  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 4-Chlorotoluene                        | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| cis-1,2-DCE                            | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Dibromochloromethane                   | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Dibromomethane                         | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Dichlorodifluoromethane                | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1-Dichloroethane                     | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1-Dichloroethene                     | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2-Dichloropropane                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,3-Dichloropropane                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 2,2-Dichloropropane                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1-Dichloropropene                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Hexachlorobutadiene                    | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Isopropylbenzene                       | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 4-Isopropyltoluene                     | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Methylene chloride                     | ND     | 0.00237  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| n-Butylbenzene                         | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 2-Hexanone                             | ND     | 0.00789  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| n-Propylbenzene                        | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| sec-Butylbenzene                       | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Styrene                                | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00789  |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| tert-Butylbenzene                      | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| trans-1,2-DCE                          | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Trichloroethene (TCE)                  | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Trichlorofluoromethane                 | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Vinyl chloride                         | ND     | 0.000789 |      | mg/Kg | 1  | 10/15/2012 4:54:48 PM |
| Surr: 1,2-Dichloroethane-d4            | 90.1   | 70-130   |      | %REC  | 1  | 10/15/2012 4:54:48 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:30:00 PM

**Lab ID:** 1210692-007

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 127    | 70-130 |      | %REC  | 1  | 10/15/2012 4:54:48 PM |
| Surr: Dibromofluoromethane                  | 104    | 70-130 |      | %REC  | 1  | 10/15/2012 4:54:48 PM |
| Surr: Toluene-d8                            | 98.6   | 70-130 |      | %REC  | 1  | 10/15/2012 4:54:48 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 6:07:43 PM |
| Surr: BFB                                   | 93.4   | 70-130 |      | %REC  | 1  | 10/21/2012 6:07:43 PM |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (6-8')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:45:00 PM

**Lab ID:** 1210692-008

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 11:50:24 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 11:50:24 AM |
| Surr: DNOP                                     | 90.9   | 77.6-140 |      | %REC  | 1   | 10/16/2012 11:50:24 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 4:57:04 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Barium                                         | 540    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:06:38 AM   |
| Beryllium                                      | 0.90   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Cobalt                                         | 5.2    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Iron                                           | 22000  | 500      |      | mg/Kg | 500 | 11/2/2012 8:09:03 AM   |
| Lead                                           | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Manganese                                      | 570    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:06:38 AM   |
| Nickel                                         | 11     | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Vanadium                                       | 26     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| Zinc                                           | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:15:17 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 1:58:57 AM  |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (6-8')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:45:00 PM

**Lab ID:** 1210692-008

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (6-8')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:45:00 PM

**Lab ID:** 1210692-008

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 1:58:57 AM |
| Surr: 2,4,6-Tribromophenol             | 70.4    | 21.3-145 |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| Surr: 2-Fluorobiphenyl                 | 82.7    | 20-131   |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| Surr: 2-Fluorophenol                   | 74.2    | 11.9-130 |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| Surr: 4-Terphenyl-d14                  | 70.8    | 25.1-149 |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| Surr: Nitrobenzene-d5                  | 89.8    | 25.6-137 |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| Surr: Phenol-d5                        | 76.7    | 20.3-132 |      | %REC  | 1  | 10/21/2012 1:58:57 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.0114  | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Toluene                                | 0.00448 | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Ethylbenzene                           | 0.00107 | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Xylenes, Total                         | 0.00276 | 0.00160  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2,4-Trimethylbenzene                 | 0.00123 | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Naphthalene                            | ND      | 0.00160  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1-Methylnaphthalene                    | ND      | 0.00320  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 2-Methylnaphthalene                    | ND      | 0.00320  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Acetone                                | 0.0250  | 0.00801  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Bromobenzene                           | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Bromodichloromethane                   | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Bromoform                              | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Bromomethane                           | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 2-Butanone                             | ND      | 0.00801  |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Carbon tetrachloride                   | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Chlorobenzene                          | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Chloroethane                           | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Chloroform                             | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Chloromethane                          | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 2-Chlorotoluene                        | ND      | 0.000801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (6-8')

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:45:00 PM

**Lab ID:** 1210692-008

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 4-Chlorotoluene                        | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| cis-1,2-DCE                            | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Dibromochloromethane                   | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Dibromomethane                         | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Dichlorodifluoromethane                | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1-Dichloroethane                     | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1-Dichloroethene                     | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2-Dichloropropane                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,3-Dichloropropane                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 2,2-Dichloropropane                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1-Dichloropropene                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Hexachlorobutadiene                    | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Isopropylbenzene                       | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 4-Isopropyltoluene                     | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Methylene chloride                     | ND     | 0.00240 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| n-Butylbenzene                         | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 2-Hexanone                             | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| n-Propylbenzene                        | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| sec-Butylbenzene                       | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Styrene                                | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| tert-Butylbenzene                      | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| trans-1,2-DCE                          | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Trichloroethene (TCE)                  | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Trichlorofluoromethane                 | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Vinyl chloride                         | ND     | 0.00801 |      | mg/Kg | 1  | 10/15/2012 5:25:42 PM |
| Surr: 1,2-Dichloroethane-d4            | 95.0   | 70-130  |      | %REC  | 1  | 10/15/2012 5:25:42 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-38 (6-8")

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 2:45:00 PM

**Lab ID:** 1210692-008

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 97.3   | 70-130 |      | %REC  | 1  | 10/15/2012 5:25:42 PM |
| Surr: Dibromofluoromethane                  | 107    | 70-130 |      | %REC  | 1  | 10/15/2012 5:25:42 PM |
| Surr: Toluene-d8                            | 103    | 70-130 |      | %REC  | 1  | 10/15/2012 5:25:42 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 6:36:19 PM |
| Surr: BFB                                   | 86.4   | 70-130 |      | %REC  | 1  | 10/21/2012 6:36:19 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:00:00 AM

**Lab ID:** 1210692-009

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 4:37:23 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 4:37:23 PM  |
| Surr: DNOP                                     | 83.3   | 77.6-140 |      | %REC  | 1   | 10/16/2012 4:37:23 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.054  | 0.033    |      | mg/kg | 1   | 10/23/2012 4:58:51 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Barium                                         | 560    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:11:40 AM   |
| Beryllium                                      | 0.60   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Chromium                                       | 8.0    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Cobalt                                         | 2.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/2/2012 8:14:06 AM   |
| Lead                                           | 1.4    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Manganese                                      | 470    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:11:40 AM   |
| Nickel                                         | 5.8    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| Zinc                                           | 15     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:21:12 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 9:05:15 AM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:00:00 AM

**Lab ID:** 1210692-009

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| 4-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:00:00 AM

**Lab ID:** 1210692-009

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 9:05:15 AM  |
| Surr: 2,4,6-Tribromophenol             | 78.1    | 21.3-145 |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| Surr: 2-Fluorobiphenyl                 | 91.7    | 20-131   |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| Surr: 2-Fluorophenol                   | 72.8    | 11.9-130 |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| Surr: 4-Terphenyl-d14                  | 84.8    | 25.1-149 |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| Surr: Nitrobenzene-d5                  | 89.6    | 25.6-137 |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| Surr: Phenol-d5                        | 78.1    | 20.3-132 |      | %REC  | 1  | 10/21/2012 9:05:15 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00213 | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Toluene                                | 0.0114  | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Ethylbenzene                           | 0.0636  | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Xylenes, Total                         | 0.447   | 0.00187  | E    | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2,4-Trimethylbenzene                 | 0.00844 | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,3,5-Trimethylbenzene                 | 0.00334 | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Naphthalene                            | ND      | 0.00187  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1-Methylnaphthalene                    | ND      | 0.00375  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 2-Methylnaphthalene                    | ND      | 0.00375  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Acetone                                | 2.44    | 0.00937  | E    | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Bromobenzene                           | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Bromodichloromethane                   | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Bromoform                              | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Bromomethane                           | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 2-Butanone                             | 0.0722  | 0.00937  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Carbon tetrachloride                   | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Chlorobenzene                          | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Chloroethane                           | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Chloroform                             | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Chloromethane                          | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 2-Chlorotoluene                        | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:00:00 AM

**Lab ID:** 1210692-009

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Carbon disulfide                       | ND      | 0.00937  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 4-Chlorotoluene                        | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| cis-1,2-DCE                            | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| cis-1,3-Dichloropropene                | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2-Dibromo-3-chloropropane            | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Dibromochloromethane                   | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Dibromomethane                         | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2-Dichlorobenzene                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,3-Dichlorobenzene                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,4-Dichlorobenzene                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Dichlorodifluoromethane                | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1-Dichloroethane                     | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1-Dichloroethene                     | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2-Dichloropropane                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,3-Dichloropropane                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 2,2-Dichloropropane                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1-Dichloropropene                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Hexachlorobutadiene                    | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Isopropylbenzene                       | 0.00310 | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 4-Isopropyltoluene                     | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Methylene chloride                     | ND      | 0.00281  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| n-Butylbenzene                         | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 2-Hexanone                             | ND      | 0.00937  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| n-Propylbenzene                        | 0.00173 | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| sec-Butylbenzene                       | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Styrene                                | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 4-Methyl-2-pentanone                   | ND      | 0.00937  |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| tert-Butylbenzene                      | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1,1,2-Tetrachloroethane              | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1,2,2-Tetrachloroethane              | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Tetrachloroethene (PCE)                | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| trans-1,2-DCE                          | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| trans-1,3-Dichloropropene              | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2,3-Trichlorobenzene                 | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1,1-Trichloroethane                  | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,1,2-Trichloroethane                  | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Trichloroethene (TCE)                  | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Trichlorofluoromethane                 | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| 1,2,3-Trichloropropane                 | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Vinyl chloride                         | ND      | 0.000937 |      | mg/Kg | 1  | 10/15/2012 11:04:19 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.0    | 70-130   |      | %REC  | 1  | 10/15/2012 11:04:19 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:00:00 AM

**Lab ID:** 1210692-009

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed          |
|---------------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA           |
| Surr: 4-Bromofluorobenzene                  | 109    | 70-130 |      | %REC  | 1  | 10/15/2012 11:04:19 PM |
| Surr: Dibromofluoromethane                  | 97.0   | 70-130 |      | %REC  | 1  | 10/15/2012 11:04:19 PM |
| Surr: Toluene-d8                            | 91.0   | 70-130 |      | %REC  | 1  | 10/15/2012 11:04:19 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)               | 9.3    | 5.0    |      | mg/Kg | 1  | 10/21/2012 7:04:38 PM  |
| Surr: BFB                                   | 94.8   | 70-130 |      | %REC  | 1  | 10/21/2012 7:04:38 PM  |

**Qualifiers:**

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- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:15:00 AM

**Lab ID:** 1210692-010

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 12:12:00 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 12:12:00 PM |
| Surr: DNOP                                     | 97.4   | 77.6-140 |      | %REC  | 1   | 10/16/2012 12:12:00 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:00:37 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Arsenic                                        | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Barium                                         | 750    | 5.0      |      | mg/Kg | 50  | 11/2/2012 10:02:03 AM  |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Chromium                                       | 8.0    | 1.5      |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Cobalt                                         | 4.3    | 1.5      |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/2/2012 10:06:05 AM  |
| Lead                                           | 2.7    | 1.3      |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Manganese                                      | 1300   | 5.0      |      | mg/Kg | 50  | 11/2/2012 10:02:03 AM  |
| Nickel                                         | 6.0    | 2.5      |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Selenium                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Vanadium                                       | 20     | 13       |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| Zinc                                           | 13     | 13       |      | mg/Kg | 5   | 11/2/2012 8:17:00 AM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 12:59:09 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:15:00 AM

**Lab ID:** 1210692-010

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:15:00 AM

**Lab ID:** 1210692-010

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 12:59:09 PM |
| Surr: 2,4,6-Tribromophenol             | 93.4    | 21.3-145 |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| Surr: 2-Fluorobiphenyl                 | 86.2    | 20-131   |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| Surr: 2-Fluorophenol                   | 92.9    | 11.9-130 |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| Surr: 4-Terphenyl-d14                  | 73.6    | 25.1-149 |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| Surr: Nitrobenzene-d5                  | 91.3    | 25.6-137 |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| Surr: Phenol-d5                        | 90.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 12:59:09 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00130 | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Toluene                                | 0.00240 | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Ethylbenzene                           | 0.00135 | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Xylenes, Total                         | 0.00781 | 0.00150  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Naphthalene                            | ND      | 0.00150  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00301  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00301  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Acetone                                | 0.169   | 0.00752  | E    | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Bromobenzene                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Bromodichloromethane                   | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Bromoform                              | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Bromomethane                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 2-Butanone                             | ND      | 0.00752  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Carbon tetrachloride                   | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Chlorobenzene                          | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Chloroethane                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Chloroform                             | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| Chloromethane                          | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |
| 2-Chlorotoluene                        | ND      | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:15:00 AM

**Lab ID:** 1210692-010

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00752  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 4-Chlorotoluene                        | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| cis-1,2-DCE                            | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Dibromochloromethane                   | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Dibromomethane                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Dichlorodifluoromethane                | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1-Dichloroethane                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1-Dichloroethene                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,3-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 2,2-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1-Dichloropropene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Hexachlorobutadiene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Isopropylbenzene                       | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 4-Isopropyltoluene                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Methylene chloride                     | ND     | 0.00226  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| n-Butylbenzene                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 2-Hexanone                             | ND     | 0.00752  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| n-Propylbenzene                        | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| sec-Butylbenzene                       | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Styrene                                | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00752  |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| tert-Butylbenzene                      | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| trans-1,2-DCE                          | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Trichloroethene (TCE)                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Trichlorofluoromethane                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Vinyl chloride                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/15/2012 5:56:34 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.7   | 70-130   |      | %REC  | 1  | 10/15/2012 5:56:34 PM |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-27 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:15:00 AM

**Lab ID:** 1210692-010

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 94.3   | 70-130 |      | %REC  | 1  | 10/15/2012 5:56:34 PM |
| Surr: Dibromofluoromethane                  | 103    | 70-130 |      | %REC  | 1  | 10/15/2012 5:56:34 PM |
| Surr: Toluene-d8                            | 99.8   | 70-130 |      | %REC  | 1  | 10/15/2012 5:56:34 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 7:32:58 PM |
| Surr: BFB                                   | 89.0   | 70-130 |      | %REC  | 1  | 10/21/2012 7:32:58 PM |

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:50:00 AM

**Lab ID:** 1210692-011

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 27     | 10       |      | mg/Kg | 1   | 10/17/2012 11:25:46 AM |
| Motor Oil Range Organics (MRO)                 | 53     | 51       |      | mg/Kg | 1   | 10/17/2012 11:25:46 AM |
| Surr: DNOP                                     | 92.3   | 77.6-140 |      | %REC  | 1   | 10/17/2012 11:25:46 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.67   | 0.16     |      | mg/kg | 5   | 10/23/2012 7:09:55 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Barium                                         | 490    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:19:27 AM   |
| Beryllium                                      | 0.70   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Chromium                                       | 10     | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Cobalt                                         | 3.7    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 8:24:30 AM   |
| Lead                                           | 2.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Manganese                                      | 520    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:19:27 AM   |
| Nickel                                         | 7.1    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| Zinc                                           | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:32:52 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:27:36 PM  |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:50:00 AM

**Lab ID:** 1210692-011

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |

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## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:50:00 AM

**Lab ID:** 1210692-011

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:27:36 PM |
| Surr: 2,4,6-Tribromophenol             | 92.9    | 21.3-145 |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| Surr: 2-Fluorobiphenyl                 | 96.6    | 20-131   |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| Surr: 2-Fluorophenol                   | 84.7    | 11.9-130 |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| Surr: 4-Terphenyl-d14                  | 90.5    | 25.1-149 |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| Surr: Nitrobenzene-d5                  | 100     | 25.6-137 |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| Surr: Phenol-d5                        | 91.8    | 20.3-132 |      | %REC  | 1  | 10/21/2012 2:27:36 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00299 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Toluene                                | 0.00473 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Ethylbenzene                           | 0.00180 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Xylenes, Total                         | 0.00910 | 0.00202  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2,4-Trimethylbenzene                 | 0.00209 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Naphthalene                            | ND      | 0.00202  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1-Methylnaphthalene                    | ND      | 0.00405  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 2-Methylnaphthalene                    | ND      | 0.00405  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Acetone                                | 0.135   | 0.0101   |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Bromobenzene                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Bromodichloromethane                   | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Bromoform                              | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Bromomethane                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 2-Butanone                             | 0.0161  | 0.0101   |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Carbon tetrachloride                   | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Chlorobenzene                          | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Chloroethane                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Chloroform                             | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Chloromethane                          | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 2-Chlorotoluene                        | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |

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Lab Order 1210692

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**Lab ID:** 1210692-011

**Matrix:** SOIL

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| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 4-Chlorotoluene                        | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| cis-1,2-DCE                            | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Dibromochloromethane                   | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Dibromomethane                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Dichlorodifluoromethane                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1-Dichloroethane                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1-Dichloroethene                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,3-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 2,2-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1-Dichloropropene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Hexachlorobutadiene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Isopropylbenzene                       | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 4-Isopropyltoluene                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Methylene chloride                     | ND     | 0.00303 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| n-Butylbenzene                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 2-Hexanone                             | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| n-Propylbenzene                        | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| sec-Butylbenzene                       | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Styrene                                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| tert-Butylbenzene                      | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| trans-1,2-DCE                          | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Trichloroethene (TCE)                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Trichlorofluoromethane                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Vinyl chloride                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 6:27:22 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.7   | 70-130  |      | %REC  | 1  | 10/15/2012 6:27:22 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 9:50:00 AM

**Lab ID:** 1210692-011

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 108    | 70-130 |      | %REC  | 1  | 10/15/2012 6:27:22 PM |
| Surr: Dibromofluoromethane                  | 109    | 70-130 |      | %REC  | 1  | 10/15/2012 6:27:22 PM |
| Surr: Toluene-d8                            | 99.5   | 70-130 |      | %REC  | 1  | 10/15/2012 6:27:22 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 8:01:27 PM |
| Surr: BFB                                   | 90.4   | 70-130 |      | %REC  | 1  | 10/21/2012 8:01:27 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-012

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 12:33:45 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 12:33:45 PM |
| Surr: DNOP                                     | 92.8   | 77.6-140 |      | %REC  | 1   | 10/16/2012 12:33:45 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:04:21 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Barium                                         | 570    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:36:09 AM   |
| Beryllium                                      | 0.41   | 0.30     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Chromium                                       | 5.2    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Cobalt                                         | 2.7    | 0.60     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Iron                                           | 8800   | 500      |      | mg/Kg | 500 | 11/2/2012 8:38:33 AM   |
| Lead                                           | 1.4    | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Manganese                                      | 430    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:36:09 AM   |
| Nickel                                         | 3.7    | 1.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Vanadium                                       | 12     | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| Zinc                                           | 8.8    | 5.0      |      | mg/Kg | 2   | 10/25/2012 10:48:56 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 2:57:01 AM  |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-012

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-012

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 2:57:01 AM |
| Surr: 2,4,6-Tribromophenol             | 90.2   | 21.3-145 |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| Surr: 2-Fluorobiphenyl                 | 87.9   | 20-131   |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| Surr: 2-Fluorophenol                   | 86.7   | 11.9-130 |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| Surr: 4-Terphenyl-d14                  | 85.4   | 25.1-149 |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| Surr: Nitrobenzene-d5                  | 93.5   | 25.6-137 |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| Surr: Phenol-d5                        | 90.6   | 20.3-132 |      | %REC  | 1  | 10/21/2012 2:57:01 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Benzene                                | 2.53   | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Toluene                                | 3.54   | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Ethylbenzene                           | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Xylenes, Total                         | 2.38   | 2.03     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Naphthalene                            | ND     | 2.03     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1-Methylnaphthalene                    | ND     | 4.05     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 2-Methylnaphthalene                    | ND     | 4.05     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Acetone                                | 54.1   | 10.1     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Bromobenzene                           | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Bromodichloromethane                   | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Bromoform                              | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Bromomethane                           | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 2-Butanone                             | ND     | 10.1     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Carbon tetrachloride                   | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Chlorobenzene                          | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Chloroethane                           | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Chloroform                             | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Chloromethane                          | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 2-Chlorotoluene                        | ND     | 1.01     |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-012

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL     | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 10.1   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 4-Chlorotoluene                        | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| cis-1,2-DCE                            | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| cis-1,3-Dichloropropene                | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Dibromochloromethane                   | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Dibromomethane                         | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Dichlorodifluoromethane                | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1-Dichloroethane                     | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1-Dichloroethene                     | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2-Dichloropropane                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,3-Dichloropropane                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 2,2-Dichloropropane                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1-Dichloropropene                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Hexachlorobutadiene                    | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Isopropylbenzene                       | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 4-Isopropyltoluene                     | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Methylene chloride                     | ND     | 3.04   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| n-Butylbenzene                         | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 2-Hexanone                             | ND     | 10.1   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| n-Propylbenzene                        | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| sec-Butylbenzene                       | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Styrene                                | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 4-Methyl-2-pentanone                   | ND     | 10.1   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| tert-Butylbenzene                      | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Tetrachloroethene (PCE)                | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| trans-1,2-DCE                          | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| trans-1,3-Dichloropropene              | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1,1-Trichloroethane                  | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,1,2-Trichloroethane                  | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Trichloroethene (TCE)                  | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Trichlorofluoromethane                 | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| 1,2,3-Trichloropropane                 | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Vinyl chloride                         | ND     | 1.01   |      | mg/Kg | 1  | 10/15/2012 6:58:08 PM |
| Surr: 1,2-Dichloroethane-d4            | 87.7   | 70-130 |      | %REC  | 1  | 10/15/2012 6:58:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-012

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 106    | 70-130 |      | %REC  | 1  | 10/15/2012 6:58:08 PM |
| Surr: Dibromofluoromethane                  | 96.7   | 70-130 |      | %REC  | 1  | 10/15/2012 6:58:08 PM |
| Surr: Toluene-d8                            | 99.2   | 70-130 |      | %REC  | 1  | 10/15/2012 6:58:08 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 8:29:46 PM |
| Surr: BFB                                   | 94.2   | 70-130 |      | %REC  | 1  | 10/21/2012 8:29:46 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-013

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/16/2012 12:55:28 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 12:55:28 PM |
| Surr: DNOP                                     | 95.2   | 77.6-140 |      | %REC  | 1   | 10/16/2012 12:55:28 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:06:09 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Barium                                         | 630    | 2.0      |      | mg/Kg | 20  | 11/2/2012 10:08:56 AM  |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Chromium                                       | 6.0    | 1.5      |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Cobalt                                         | 4.1    | 1.5      |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Iron                                           | 10000  | 500      |      | mg/Kg | 500 | 11/2/2012 10:11:20 AM  |
| Lead                                           | 3.1    | 1.2      |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Manganese                                      | 680    | 2.0      |      | mg/Kg | 20  | 11/2/2012 10:08:56 AM  |
| Nickel                                         | 4.8    | 2.5      |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Vanadium                                       | 22     | 12       |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| Zinc                                           | ND     | 12       |      | mg/Kg | 5   | 11/2/2012 8:41:27 AM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:25:59 AM  |

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- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-013

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Nitrobenzene                           | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-013

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:25:59 AM |
| Surr: 2,4,6-Tribromophenol             | 90.5   | 21.3-145 |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| Surr: 2-Fluorobiphenyl                 | 89.6   | 20-131   |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| Surr: 2-Fluorophenol                   | 84.6   | 11.9-130 |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| Surr: 4-Terphenyl-d14                  | 80.7   | 25.1-149 |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| Surr: Nitrobenzene-d5                  | 92.6   | 25.6-137 |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| Surr: Phenol-d5                        | 86.9   | 20.3-132 |      | %REC  | 1  | 10/21/2012 3:25:59 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Benzene                                | 2.48   | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Toluene                                | 2.86   | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Ethylbenzene                           | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Xylenes, Total                         | 1.64   | 1.57     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Naphthalene                            | ND     | 1.57     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1-Methylnaphthalene                    | ND     | 3.15     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 2-Methylnaphthalene                    | ND     | 3.15     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Acetone                                | 34.8   | 7.87     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Bromobenzene                           | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Bromodichloromethane                   | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Bromoform                              | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Bromomethane                           | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 2-Butanone                             | ND     | 7.87     |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Carbon tetrachloride                   | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Chlorobenzene                          | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Chloroethane                           | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Chloroform                             | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Chloromethane                          | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 2-Chlorotoluene                        | ND     | 0.787    |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-013

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL     | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 7.87   |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 4-Chlorotoluene                        | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| cis-1,2-DCE                            | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| cis-1,3-Dichloropropene                | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Dibromochloromethane                   | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Dibromomethane                         | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Dichlorodifluoromethane                | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1-Dichloroethane                     | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1-Dichloroethene                     | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2-Dichloropropane                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,3-Dichloropropane                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 2,2-Dichloropropane                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1-Dichloropropene                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Hexachlorobutadiene                    | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Isopropylbenzene                       | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 4-Isopropyltoluene                     | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Methylene chloride                     | ND     | 2.36   |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| n-Butylbenzene                         | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 2-Hexanone                             | ND     | 7.87   |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| n-Propylbenzene                        | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| sec-Butylbenzene                       | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Styrene                                | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 4-Methyl-2-pentanone                   | ND     | 7.87   |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| tert-Butylbenzene                      | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Tetrachloroethene (PCE)                | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| trans-1,2-DCE                          | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| trans-1,3-Dichloropropene              | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Trichloroethene (TCE)                  | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Trichlorofluoromethane                 | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Vinyl chloride                         | ND     | 0.787  |      | mg/Kg | 1  | 10/15/2012 7:28:52 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.2   | 70-130 |      | %REC  | 1  | 10/15/2012 7:28:52 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-28 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 10:10:00 AM

**Lab ID:** 1210692-013

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed         |
|---------------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Surr: 4-Bromofluorobenzene                  | 99.8   | 70-130 |      | %REC  | 1  | 10/15/2012 7:28:52 PM |
| Surr: Dibromofluoromethane                  | 106    | 70-130 |      | %REC  | 1  | 10/15/2012 7:28:52 PM |
| Surr: Toluene-d8                            | 96.5   | 70-130 |      | %REC  | 1  | 10/15/2012 7:28:52 PM |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 8:58:09 PM |
| Surr: BFB                                   | 93.8   | 70-130 |      | %REC  | 1  | 10/21/2012 8:58:09 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 11:40:00 AM

**Lab ID:** 1210692-014

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 17     | 10       |      | mg/Kg | 1   | 10/17/2012 11:47:30 AM |
| Motor Oil Range Organics (MRO)                 | 79     | 51       |      | mg/Kg | 1   | 10/17/2012 11:47:30 AM |
| Surr: DNOP                                     | 90.9   | 77.6-140 |      | %REC  | 1   | 10/17/2012 11:47:30 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.13   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:07:58 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Barium                                         | 580    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:51:14 AM   |
| Beryllium                                      | 0.69   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Chromium                                       | 13     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 8:53:39 AM   |
| Lead                                           | 3.7    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Manganese                                      | 550    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:51:14 AM   |
| Nickel                                         | 7.3    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Vanadium                                       | 21     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| Zinc                                           | 26     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:16:17 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |
| Butyl benzyl phthalate                         | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 2:56:55 PM  |

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- ND Not Detected at the Reporting Limit
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- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 11:40:00 AM

**Lab ID:** 1210692-014

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 3-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Nitrobenzene                           | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 11:40:00 AM

**Lab ID:** 1210692-014

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 2:56:55 PM |
| Surr: 2,4,6-Tribromophenol             | 56.8    | 21.3-145 |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| Surr: 2-Fluorobiphenyl                 | 56.8    | 20-131   |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| Surr: 2-Fluorophenol                   | 51.4    | 11.9-130 |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| Surr: 4-Terphenyl-d14                  | 60.0    | 25.1-149 |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| Surr: Nitrobenzene-d5                  | 63.8    | 25.6-137 |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| Surr: Phenol-d5                        | 57.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 2:56:55 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00240 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Toluene                                | 0.00603 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Ethylbenzene                           | 0.00644 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Xylenes, Total                         | 0.0493  | 0.00202  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2,4-Trimethylbenzene                 | 0.00268 | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Naphthalene                            | ND      | 0.00202  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1-Methylnaphthalene                    | ND      | 0.00404  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 2-Methylnaphthalene                    | ND      | 0.00404  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Acetone                                | 0.692   | 0.0101   | E    | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Bromobenzene                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Bromodichloromethane                   | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Bromoform                              | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Bromomethane                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 2-Butanone                             | 0.0213  | 0.0101   |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Carbon tetrachloride                   | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Chlorobenzene                          | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Chloroethane                           | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Chloroform                             | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Chloromethane                          | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 2-Chlorotoluene                        | ND      | 0.00101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 11:40:00 AM

**Lab ID:** 1210692-014

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 4-Chlorotoluene                        | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| cis-1,2-DCE                            | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Dibromochloromethane                   | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Dibromomethane                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Dichlorodifluoromethane                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1-Dichloroethane                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1-Dichloroethene                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,3-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 2,2-Dichloropropane                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1-Dichloropropene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Hexachlorobutadiene                    | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Isopropylbenzene                       | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 4-Isopropyltoluene                     | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Methylene chloride                     | ND     | 0.00303 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| n-Butylbenzene                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 2-Hexanone                             | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| n-Propylbenzene                        | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| sec-Butylbenzene                       | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Styrene                                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0101  |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| tert-Butylbenzene                      | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| trans-1,2-DCE                          | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Trichloroethene (TCE)                  | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Trichlorofluoromethane                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Vinyl chloride                         | ND     | 0.00101 |      | mg/Kg | 1  | 10/15/2012 7:59:34 PM |
| Surr: 1,2-Dichloroethane-d4            | 95.9   | 70-130  |      | %REC  | 1  | 10/15/2012 7:59:34 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 11:40:00 AM

**Lab ID:** 1210692-014

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed          |
|---------------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA           |
| Surr: 4-Bromofluorobenzene                  | 111    | 70-130 |      | %REC  | 1  | 10/15/2012 7:59:34 PM  |
| Surr: Dibromofluoromethane                  | 103    | 70-130 |      | %REC  | 1  | 10/15/2012 7:59:34 PM  |
| Surr: Toluene-d8                            | 91.1   | 70-130 |      | %REC  | 1  | 10/15/2012 7:59:34 PM  |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 11:19:31 PM |
| Surr: BFB                                   | 97.4   | 70-130 |      | %REC  | 1  | 10/21/2012 11:19:31 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:00:00 PM

**Lab ID:** 1210692-015

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 23     | 9.9      |      | mg/Kg | 1   | 10/17/2012 11:03:58 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/17/2012 11:03:58 AM |
| Surr: DNOP                                     | 94.2   | 77.6-140 |      | %REC  | 1   | 10/17/2012 11:03:58 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.14   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:09:46 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Barium                                         | 610    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:58:09 AM   |
| Beryllium                                      | 0.67   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:00:35 AM   |
| Lead                                           | 3.1    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Manganese                                      | 530    | 2.0      |      | mg/Kg | 20  | 11/2/2012 8:58:09 AM   |
| Nickel                                         | 6.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| Zinc                                           | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:32:24 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Acenaphthylene                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Aniline                                        | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Anthracene                                     | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Azobenzene                                     | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benz(a)anthracene                              | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzo(a)pyrene                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Benzyl alcohol                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 2.5      |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |
| Butyl benzyl phthalate                         | ND     | 0.99     |      | mg/Kg | 1   | 10/21/2012 3:26:18 PM  |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:00:00 PM

**Lab ID:** 1210692-015

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4-Chloroaniline                        | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2-Chloronaphthalene                    | ND     | 1.2  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2-Chlorophenol                         | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Chrysene                               | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Di-n-butyl phthalate                   | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Di-n-octyl phthalate                   | ND     | 2.0  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Dibenzofuran                           | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.2  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Diethyl phthalate                      | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Dimethyl phthalate                     | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Fluoranthene                           | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Fluorene                               | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Hexachlorobenzene                      | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Hexachlorobutadiene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Hexachlorocyclopentadiene              | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Hexachloroethane                       | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Isophorone                             | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 1-Methylnaphthalene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2-Methylnaphthalene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2-Methylphenol                         | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 3+4-Methylphenol                       | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Naphthalene                            | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2-Nitroaniline                         | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 3-Nitroaniline                         | ND     | 0.99 |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4-Nitroaniline                         | ND     | 2.0  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Nitrobenzene                           | ND     | 2.5  |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:00:00 PM

**Lab ID:** 1210692-015

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 4-Nitrophenol                          | ND      | 1.2      |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Pentachlorophenol                      | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Phenanthrene                           | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Phenol                                 | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Pyrene                                 | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Pyridine                               | ND      | 2.5      |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.99     |      | mg/Kg | 1  | 10/21/2012 3:26:18 PM |
| Surr: 2,4,6-Tribromophenol             | 94.8    | 21.3-145 |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| Surr: 2-Fluorobiphenyl                 | 96.7    | 20-131   |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| Surr: 2-Fluorophenol                   | 82.5    | 11.9-130 |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| Surr: 4-Terphenyl-d14                  | 102     | 25.1-149 |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| Surr: Nitrobenzene-d5                  | 92.1    | 25.6-137 |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| Surr: Phenol-d5                        | 92.2    | 20.3-132 |      | %REC  | 1  | 10/21/2012 3:26:18 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00140 | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Toluene                                | 0.00263 | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Ethylbenzene                           | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Xylenes, Total                         | 0.00149 | 0.00140  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Naphthalene                            | ND      | 0.00140  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1-Methylnaphthalene                    | ND      | 0.00279  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 2-Methylnaphthalene                    | ND      | 0.00279  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Acetone                                | 0.0541  | 0.00698  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Bromobenzene                           | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Bromodichloromethane                   | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Bromoform                              | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Bromomethane                           | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 2-Butanone                             | ND      | 0.00698  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Carbon tetrachloride                   | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Chlorobenzene                          | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Chloroethane                           | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Chloroform                             | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Chloromethane                          | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 2-Chlorotoluene                        | ND      | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:00:00 PM

**Lab ID:** 1210692-015

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00698  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 4-Chlorotoluene                        | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| cis-1,2-DCE                            | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Dibromochloromethane                   | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Dibromomethane                         | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Dichlorodifluoromethane                | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1-Dichloroethane                     | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1-Dichloroethene                     | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2-Dichloropropane                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,3-Dichloropropane                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 2,2-Dichloropropane                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1-Dichloropropene                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Hexachlorobutadiene                    | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Isopropylbenzene                       | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 4-Isopropyltoluene                     | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Methylene chloride                     | ND     | 0.00209  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| n-Butylbenzene                         | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 2-Hexanone                             | ND     | 0.00698  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| n-Propylbenzene                        | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| sec-Butylbenzene                       | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Styrene                                | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00698  |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| tert-Butylbenzene                      | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| trans-1,2-DCE                          | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Trichloroethene (TCE)                  | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Trichlorofluoromethane                 | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Vinyl chloride                         | ND     | 0.000698 |      | mg/Kg | 1  | 10/15/2012 8:30:17 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.3   | 70-130   |      | %REC  | 1  | 10/15/2012 8:30:17 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:00:00 PM

**Lab ID:** 1210692-015

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed          |
|---------------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA           |
| Surr: 4-Bromofluorobenzene                  | 92.6   | 70-130 |      | %REC  | 1  | 10/15/2012 8:30:17 PM  |
| Surr: Dibromofluoromethane                  | 99.4   | 70-130 |      | %REC  | 1  | 10/15/2012 8:30:17 PM  |
| Surr: Toluene-d8                            | 106    | 70-130 |      | %REC  | 1  | 10/15/2012 8:30:17 PM  |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/21/2012 11:47:58 PM |
| Surr: BFB                                   | 87.9   | 70-130 |      | %REC  | 1  | 10/21/2012 11:47:58 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:10:00 PM

**Lab ID:** 1210692-016

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.8      |      | mg/Kg | 1   | 10/16/2012 6:43:28 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/16/2012 6:43:28 PM  |
| Surr: DNOP                                     | 102    | 77.6-140 |      | %REC  | 1   | 10/16/2012 6:43:28 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:11:32 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Barium                                         | 870    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:12:14 AM   |
| Beryllium                                      | 0.47   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Chromium                                       | 7.5    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Cobalt                                         | 3.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Iron                                           | 12000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:14:39 AM   |
| Lead                                           | 3.3    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Manganese                                      | 840    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:12:14 AM   |
| Nickel                                         | 4.7    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Vanadium                                       | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| Zinc                                           | 10     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:10 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzoic acid                                   | ND     | 0.51     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 0.51     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| 4-Bromophenyl phenyl ether                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |
| Butyl benzyl phthalate                         | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:55:40 PM  |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:10:00 PM

**Lab ID:** 1210692-016

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4-Chloroaniline                        | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Di-n-butyl phthalate                   | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Isophorone                             | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2-Methylphenol                         | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 3-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Nitrobenzene                           | ND     | 0.51 |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:10:00 PM

**Lab ID:** 1210692-016

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Pyridine                               | ND      | 0.51     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:55:40 PM |
| Surr: 2,4,6-Tribromophenol             | 92.0    | 21.3-145 |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| Surr: 2-Fluorobiphenyl                 | 92.8    | 20-131   |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| Surr: 2-Fluorophenol                   | 81.3    | 11.9-130 |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| Surr: 4-Terphenyl-d14                  | 85.0    | 25.1-149 |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| Surr: Nitrobenzene-d5                  | 106     | 25.6-137 |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| Surr: Phenol-d5                        | 93.5    | 20.3-132 |      | %REC  | 1  | 10/21/2012 3:55:40 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00109 | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Toluene                                | 0.00187 | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Ethylbenzene                           | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Xylenes, Total                         | ND      | 0.00137  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Naphthalene                            | ND      | 0.00137  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1-Methylnaphthalene                    | ND      | 0.00274  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 2-Methylnaphthalene                    | ND      | 0.00274  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Acetone                                | 0.0215  | 0.00686  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Bromobenzene                           | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Bromodichloromethane                   | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Bromoform                              | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Bromomethane                           | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 2-Butanone                             | ND      | 0.00686  |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Carbon tetrachloride                   | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Chlorobenzene                          | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Chloroethane                           | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Chloroform                             | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Chloromethane                          | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 2-Chlorotoluene                        | ND      | 0.000686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:10:00 PM

**Lab ID:** 1210692-016

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 4-Chlorotoluene                        | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| cis-1,2-DCE                            | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Dibromochloromethane                   | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Dibromomethane                         | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Dichlorodifluoromethane                | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1-Dichloroethane                     | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1-Dichloroethene                     | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2-Dichloropropane                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,3-Dichloropropane                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 2,2-Dichloropropane                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1-Dichloropropene                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Hexachlorobutadiene                    | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Isopropylbenzene                       | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 4-Isopropyltoluene                     | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Methylene chloride                     | ND     | 0.00206 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| n-Butylbenzene                         | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 2-Hexanone                             | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| n-Propylbenzene                        | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| sec-Butylbenzene                       | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Styrene                                | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| tert-Butylbenzene                      | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| trans-1,2-DCE                          | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Trichloroethene (TCE)                  | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Trichlorofluoromethane                 | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Vinyl chloride                         | ND     | 0.00686 |      | mg/Kg | 1  | 10/15/2012 9:01:08 PM |
| Surr: 1,2-Dichloroethane-d4            | 84.9   | 70-130  |      | %REC  | 1  | 10/15/2012 9:01:08 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-30 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:10:00 PM

**Lab ID:** 1210692-016

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed          |
|---------------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA           |
| Surr: 4-Bromofluorobenzene                  | 92.6   | 70-130 |      | %REC  | 1  | 10/15/2012 9:01:08 PM  |
| Surr: Dibromofluoromethane                  | 92.2   | 70-130 |      | %REC  | 1  | 10/15/2012 9:01:08 PM  |
| Surr: Toluene-d8                            | 86.2   | 70-130 |      | %REC  | 1  | 10/15/2012 9:01:08 PM  |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/22/2012 12:16:38 AM |
| Surr: BFB                                   | 87.9   | 70-130 |      | %REC  | 1  | 10/22/2012 12:16:38 AM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:45:00 PM

**Lab ID:** 1210692-017

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 12     | 9.6      |      | mg/Kg | 1   | 10/17/2012 12:09:18 PM |
| Motor Oil Range Organics (MRO)                 | 72     | 48       |      | mg/Kg | 1   | 10/17/2012 12:09:18 PM |
| Surr: DNOP                                     | 87.8   | 77.6-140 |      | %REC  | 1   | 10/17/2012 12:09:18 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.083  | 0.033    |      | mg/kg | 1   | 10/23/2012 5:13:26 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Barium                                         | 610    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:17:31 AM   |
| Beryllium                                      | 0.67   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Chromium                                       | 14     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Cobalt                                         | 3.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:19:57 AM   |
| Lead                                           | 2.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Manganese                                      | 500    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:17:31 AM   |
| Nickel                                         | 10     | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Vanadium                                       | 26     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| Zinc                                           | 23     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:54 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Bis(2-ethylhexyl)phthalate                     | ND     | 5.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| 4-Bromophenyl phenyl ether                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |
| Butyl benzyl phthalate                         | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 4:25:02 PM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:45:00 PM

**Lab ID:** 1210692-017

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 3-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4-Nitroaniline                         | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Nitrobenzene                           | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:45:00 PM

**Lab ID:** 1210692-017

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:25:02 PM |
| Surr: 2,4,6-Tribromophenol             | 109     | 21.3-145 |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| Surr: 2-Fluorobiphenyl                 | 108     | 20-131   |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| Surr: 2-Fluorophenol                   | 90.7    | 11.9-130 |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| Surr: 4-Terphenyl-d14                  | 129     | 25.1-149 |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| Surr: Nitrobenzene-d5                  | 98.4    | 25.6-137 |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| Surr: Phenol-d5                        | 101     | 20.3-132 |      | %REC  | 1  | 10/21/2012 4:25:02 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00226 | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Toluene                                | 0.00888 | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Ethylbenzene                           | 0.00199 | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Xylenes, Total                         | 0.00906 | 0.00179  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2,4-Trimethylbenzene                 | 0.00341 | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,3,5-Trimethylbenzene                 | 0.00139 | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Naphthalene                            | ND      | 0.00179  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1-Methylnaphthalene                    | ND      | 0.00358  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 2-Methylnaphthalene                    | ND      | 0.00358  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Acetone                                | 0.0608  | 0.00896  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Bromobenzene                           | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Bromodichloromethane                   | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Bromoform                              | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Bromomethane                           | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 2-Butanone                             | ND      | 0.00896  |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Carbon tetrachloride                   | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Chlorobenzene                          | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Chloroethane                           | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Chloroform                             | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Chloromethane                          | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 2-Chlorotoluene                        | ND      | 0.000896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:45:00 PM

**Lab ID:** 1210692-017

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Carbon disulfide                       | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 4-Chlorotoluene                        | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| cis-1,2-DCE                            | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Dibromochloromethane                   | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Dibromomethane                         | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Dichlorodifluoromethane                | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1-Dichloroethane                     | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1-Dichloroethene                     | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2-Dichloropropane                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,3-Dichloropropane                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 2,2-Dichloropropane                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1-Dichloropropene                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Hexachlorobutadiene                    | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Isopropylbenzene                       | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 4-Isopropyltoluene                     | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Methylene chloride                     | ND     | 0.00269 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| n-Butylbenzene                         | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 2-Hexanone                             | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| n-Propylbenzene                        | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| sec-Butylbenzene                       | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Styrene                                | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| tert-Butylbenzene                      | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| trans-1,2-DCE                          | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Trichloroethene (TCE)                  | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Trichlorofluoromethane                 | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Vinyl chloride                         | ND     | 0.00896 |      | mg/Kg | 1  | 10/15/2012 9:31:58 PM |
| Surr: 1,2-Dichloroethane-d4            | 90.7   | 70-130  |      | %REC  | 1  | 10/15/2012 9:31:58 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 12:45:00 PM

**Lab ID:** 1210692-017

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                    | Result | RL     | Qual | Units | DF | Date Analyzed          |
|---------------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA           |
| Surr: 4-Bromofluorobenzene                  | 118    | 70-130 |      | %REC  | 1  | 10/15/2012 9:31:58 PM  |
| Surr: Dibromofluoromethane                  | 101    | 70-130 |      | %REC  | 1  | 10/15/2012 9:31:58 PM  |
| Surr: Toluene-d8                            | 99.8   | 70-130 |      | %REC  | 1  | 10/15/2012 9:31:58 PM  |
| <b>EPA METHOD 8015B MOD: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA           |
| Gasoline Range Organics (GRO)               | ND     | 5.0    |      | mg/Kg | 1  | 10/22/2012 12:45:20 AM |
| Surr: BFB                                   | 92.0   | 70-130 |      | %REC  | 1  | 10/22/2012 12:45:20 AM |

**Qualifiers:**

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- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:00:00 PM

**Lab ID:** 1210692-018

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 15     | 10       |      | mg/Kg | 1   | 10/17/2012 12:30:54 PM |
| Motor Oil Range Organics (MRO)                 | 130    | 51       |      | mg/Kg | 1   | 10/17/2012 12:30:54 PM |
| Surr: DNOP                                     | 91.2   | 77.6-140 |      | %REC  | 1   | 10/17/2012 12:30:54 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | 24     | 5.0      |      | mg/Kg | 1   | 10/22/2012 1:28:54 AM  |
| Surr: BFB                                      | 108    | 84-116   |      | %REC  | 1   | 10/22/2012 1:28:54 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.056  | 0.033    |      | mg/kg | 1   | 10/23/2012 5:18:43 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Barium                                         | 1200   | 5.0      |      | mg/Kg | 50  | 11/2/2012 10:14:10 AM  |
| Beryllium                                      | 0.46   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Cobalt                                         | 3.4    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Iron                                           | 10000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:25:14 AM   |
| Lead                                           | 2.3    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Manganese                                      | 820    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:22:48 AM   |
| Nickel                                         | 9.0    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| Zinc                                           | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:49:40 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 4:54:19 PM  |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:00:00 PM

**Lab ID:** 1210692-018

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Di-n-octyl phthalate                   | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-35 (1.5-2')

Project: SWMU NO.1

Collection Date: 10/12/2012 1:00:00 PM

Lab ID: 1210692-018

Matrix: SOIL

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|----------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Nitroaniline                         | ND       | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Nitrobenzene                           | ND       | 2.5      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2-Nitrophenol                          | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 4-Nitrophenol                          | ND       | 1.3      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Pentachlorophenol                      | ND       | 2.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Phenanthrene                           | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Phenol                                 | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Pyrene                                 | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Pyridine                               | ND       | 2.5      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 1,2,4-Trichlorobenzene                 | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4,5-Trichlorophenol                  | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| 2,4,6-Trichlorophenol                  | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 4:54:19 PM |
| Surr: 2,4,6-Tribromophenol             | 84.3     | 21.3-145 |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| Surr: 2-Fluorobiphenyl                 | 82.3     | 20-131   |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| Surr: 2-Fluorophenol                   | 76.3     | 11.9-130 |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| Surr: 4-Terphenyl-d14                  | 94.7     | 25.1-149 |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| Surr: Nitrobenzene-d5                  | 84.6     | 25.6-137 |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| Surr: Phenol-d5                        | 81.4     | 20.3-132 |      | %REC  | 1  | 10/21/2012 4:54:19 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00134  | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Toluene                                | 0.00572  | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Ethylbenzene                           | 0.00141  | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Xylenes, Total                         | 0.00512  | 0.00136  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Methyl tert-butyl ether (MTBE)         | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2,4-Trimethylbenzene                 | 0.00197  | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,3,5-Trimethylbenzene                 | 0.000762 | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Naphthalene                            | ND       | 0.00136  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1-Methylnaphthalene                    | ND       | 0.00272  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 2-Methylnaphthalene                    | ND       | 0.00272  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Acetone                                | 0.0525   | 0.00680  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Bromobenzene                           | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Bromodichloromethane                   | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Bromoform                              | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Bromomethane                           | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 2-Butanone                             | ND       | 0.00680  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Carbon tetrachloride                   | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Chlorobenzene                          | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Chloroethane                           | ND       | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:00:00 PM

**Lab ID:** 1210692-018

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Chloromethane                          | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 2-Chlorotoluene                        | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Carbon disulfide                       | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 4-Chlorotoluene                        | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| cis-1,2-DCE                            | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Dibromochloromethane                   | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Dibromomethane                         | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Dichlorodifluoromethane                | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1-Dichloroethane                     | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1-Dichloroethene                     | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2-Dichloropropane                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,3-Dichloropropane                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 2,2-Dichloropropane                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1-Dichloropropene                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Hexachlorobutadiene                    | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Isopropylbenzene                       | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 4-Isopropyltoluene                     | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Methylene chloride                     | ND     | 0.00204  |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| n-Butylbenzene                         | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 2-Hexanone                             | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| n-Propylbenzene                        | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| sec-Butylbenzene                       | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Styrene                                | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| tert-Butylbenzene                      | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| trans-1,2-DCE                          | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Trichloroethene (TCE)                  | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Trichlorofluoromethane                 | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:00:00 PM

**Lab ID:** 1210692-018

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Vinyl chloride                         | ND     | 0.000680 |      | mg/Kg | 1  | 10/16/2012 1:59:01 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.1   | 70-130   |      | %REC  | 1  | 10/16/2012 1:59:01 PM |
| Surr: 4-Bromofluorobenzene             | 103    | 70-130   |      | %REC  | 1  | 10/16/2012 1:59:01 PM |
| Surr: Dibromofluoromethane             | 103    | 70-130   |      | %REC  | 1  | 10/16/2012 1:59:01 PM |
| Surr: Toluene-d8                       | 108    | 70-130   |      | %REC  | 1  | 10/16/2012 1:59:01 PM |

### Qualifiers:

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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:10:00 PM

**Lab ID:** 1210692-019

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/16/2012 5:53:12 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 52       |      | mg/Kg | 1   | 10/16/2012 5:53:12 PM  |
| Surr: DNOP                                     | 95.2   | 77.6-140 |      | %REC  | 1   | 10/16/2012 5:53:12 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 1:57:42 AM  |
| Surr: BFB                                      | 94.8   | 84-116   |      | %REC  | 1   | 10/22/2012 1:57:42 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:20:30 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Barium                                         | 440    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:28:08 AM   |
| Beryllium                                      | 0.67   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Chromium                                       | 9.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Cobalt                                         | 3.6    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Iron                                           | 16000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:32:13 AM   |
| Lead                                           | 3.3    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Manganese                                      | 770    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:28:08 AM   |
| Nickel                                         | 6.2    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Vanadium                                       | 25     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| Zinc                                           | 12     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:57:27 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 5:23:35 PM  |

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:10:00 PM

**Lab ID:** 1210692-019

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:10:00 PM

**Lab ID:** 1210692-019

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|----------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 4-Nitroaniline                         | ND       | 0.80     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Nitrobenzene                           | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 2-Nitrophenol                          | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 4-Nitrophenol                          | ND       | 0.50     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Pentachlorophenol                      | ND       | 0.80     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Phenanthrene                           | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Phenol                                 | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Pyrene                                 | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Pyridine                               | ND       | 1.0      |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 1,2,4-Trichlorobenzene                 | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 2,4,5-Trichlorophenol                  | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| 2,4,6-Trichlorophenol                  | ND       | 0.40     |      | mg/Kg | 1  | 10/21/2012 5:23:35 PM  |
| Surr: 2,4,6-Tribromophenol             | 89.2     | 21.3-145 |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| Surr: 2-Fluorobiphenyl                 | 87.2     | 20-131   |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| Surr: 2-Fluorophenol                   | 84.6     | 11.9-130 |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| Surr: 4-Terphenyl-d14                  | 84.6     | 25.1-149 |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| Surr: Nitrobenzene-d5                  | 94.5     | 25.6-137 |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| Surr: Phenol-d5                        | 88.8     | 20.3-132 |      | %REC  | 1  | 10/21/2012 5:23:35 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00202  | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Toluene                                | 0.00423  | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Ethylbenzene                           | 0.00107  | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Xylenes, Total                         | 0.00434  | 0.00140  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Methyl tert-butyl ether (MTBE)         | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2,4-Trimethylbenzene                 | 0.00177  | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,3,5-Trimethylbenzene                 | 0.000722 | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Naphthalene                            | ND       | 0.00140  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1-Methylnaphthalene                    | ND       | 0.00280  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 2-Methylnaphthalene                    | ND       | 0.00280  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Acetone                                | 0.0381   | 0.00701  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Bromobenzene                           | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Bromodichloromethane                   | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Bromoform                              | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Bromomethane                           | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 2-Butanone                             | ND       | 0.00701  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Carbon tetrachloride                   | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Chlorobenzene                          | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Chloroethane                           | ND       | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:10:00 PM

**Lab ID:** 1210692-019

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Chloromethane                          | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 2-Chlorotoluene                        | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Carbon disulfide                       | ND     | 0.00701  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 4-Chlorotoluene                        | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| cis-1,2-DCE                            | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Dibromochloromethane                   | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Dibromomethane                         | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Dichlorodifluoromethane                | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1-Dichloroethane                     | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1-Dichloroethene                     | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2-Dichloropropane                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,3-Dichloropropane                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 2,2-Dichloropropane                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1-Dichloropropene                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Hexachlorobutadiene                    | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Isopropylbenzene                       | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 4-Isopropyltoluene                     | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Methylene chloride                     | ND     | 0.00210  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| n-Butylbenzene                         | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 2-Hexanone                             | ND     | 0.00701  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| n-Propylbenzene                        | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| sec-Butylbenzene                       | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Styrene                                | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00701  |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| tert-Butylbenzene                      | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| trans-1,2-DCE                          | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Trichloroethene (TCE)                  | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Trichlorofluoromethane                 | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-35 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 1:10:00 PM

**Lab ID:** 1210692-019

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Vinyl chloride                         | ND     | 0.000701 |      | mg/Kg | 1  | 10/15/2012 10:33:34 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.1   | 70-130   |      | %REC  | 1  | 10/15/2012 10:33:34 PM |
| Surr: 4-Bromofluorobenzene             | 101    | 70-130   |      | %REC  | 1  | 10/15/2012 10:33:34 PM |
| Surr: Dibromofluoromethane             | 110    | 70-130   |      | %REC  | 1  | 10/15/2012 10:33:34 PM |
| Surr: Toluene-d8                       | 95.2   | 70-130   |      | %REC  | 1  | 10/15/2012 10:33:34 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** MeOH Blank

**Project:** SWMU NO.1

**Collection Date:**

**Lab ID:** 1210692-020

**Matrix:** MEOH (SOIL)

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: NSB          |
| Gasoline Range Organics (GRO)           | ND     | 5.0    |      | mg/Kg | 1  | 10/22/2012 2:26:31 AM |
| Surr: BFB                               | 96.1   | 84-116 |      | %REC  | 1  | 10/22/2012 2:26:31 AM |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| Benzene                                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Toluene                                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Ethylbenzene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Methyl tert-butyl ether (MTBE)          | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2,4-Trimethylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,3,5-Trimethylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2-Dichloroethane (EDC)                | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2-Dibromoethane (EDB)                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Naphthalene                             | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1-Methylnaphthalene                     | ND     | 0.20   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 2-Methylnaphthalene                     | ND     | 0.20   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Acetone                                 | ND     | 0.75   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Bromobenzene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Bromodichloromethane                    | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Bromoform                               | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Bromomethane                            | ND     | 0.15   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 2-Butanone                              | ND     | 0.50   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Carbon disulfide                        | ND     | 0.50   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Carbon tetrachloride                    | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Chlorobenzene                           | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Chloroethane                            | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Chloroform                              | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Chloromethane                           | ND     | 0.15   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 2-Chlorotoluene                         | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 4-Chlorotoluene                         | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| cis-1,2-DCE                             | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| cis-1,3-Dichloropropene                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2-Dibromo-3-chloropropane             | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Dibromochloromethane                    | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Dibromomethane                          | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,3-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,4-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Dichlorodifluoromethane                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1-Dichloroethane                      | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1-Dichloroethene                      | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2-Dichloropropane                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,3-Dichloropropane                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MeOH Blank

Project: SWMU NO.1

Collection Date:

Lab ID: 1210692-020

Matrix: MEOH (SOIL)

Received Date: 10/13/2012 8:30:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: DJF          |
| 2,2-Dichloropropane                | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1-Dichloropropene                | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Hexachlorobutadiene                | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 2-Hexanone                         | ND     | 0.50   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Isopropylbenzene                   | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 4-Isopropyltoluene                 | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 4-Methyl-2-pentanone               | ND     | 0.50   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Methylene chloride                 | ND     | 0.15   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| n-Butylbenzene                     | ND     | 0.15   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| n-Propylbenzene                    | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| sec-Butylbenzene                   | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Styrene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| tert-Butylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Tetrachloroethene (PCE)            | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| trans-1,2-DCE                      | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| trans-1,3-Dichloropropene          | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2,3-Trichlorobenzene             | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2,4-Trichlorobenzene             | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1,1-Trichloroethane              | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,1,2-Trichloroethane              | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Trichloroethene (TCE)              | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Trichlorofluoromethane             | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| 1,2,3-Trichloropropane             | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Vinyl chloride                     | ND     | 0.050  |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Xylenes, Total                     | ND     | 0.10   |      | mg/Kg | 1  | 10/16/2012 4:17:22 AM |
| Surr: 1,2-Dichloroethane-d4        | 92.0   | 70-130 |      | %REC  | 1  | 10/16/2012 4:17:22 AM |
| Surr: 4-Bromofluorobenzene         | 91.0   | 70-130 |      | %REC  | 1  | 10/16/2012 4:17:22 AM |
| Surr: Dibromofluoromethane         | 89.3   | 70-130 |      | %REC  | 1  | 10/16/2012 4:17:22 AM |
| Surr: Toluene-d8                   | 97.8   | 70-130 |      | %REC  | 1  | 10/16/2012 4:17:22 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:05:00 PM

**Lab ID:** 1210692-021

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 77     | 10       |      | mg/Kg | 1   | 10/16/2012 6:18:20 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 6:18:20 PM  |
| Surr: DNOP                                     | 105    | 77.6-140 |      | %REC  | 1   | 10/16/2012 6:18:20 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 2:55:20 AM  |
| Surr: BFB                                      | 94.8   | 84-116   |      | %REC  | 1   | 10/22/2012 2:55:20 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.12   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:29:24 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Barium                                         | 600    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:35:04 AM   |
| Beryllium                                      | 0.56   | 0.30     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Cobalt                                         | 3.6    | 0.60     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 9:37:29 AM   |
| Lead                                           | 3.5    | 0.50     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Manganese                                      | 590    | 2.0      |      | mg/Kg | 20  | 11/2/2012 9:35:04 AM   |
| Nickel                                         | 6.3    | 1.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| Zinc                                           | 30     | 5.0      |      | mg/Kg | 2   | 10/26/2012 12:11:53 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 10:37:40 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:05:00 PM

**Lab ID:** 1210692-021

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:05:00 PM

**Lab ID:** 1210692-021

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 10:37:40 PM |
| Surr: 2,4,6-Tribromophenol             | 92.5    | 21.3-145 |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| Surr: 2-Fluorobiphenyl                 | 90.8    | 20-131   |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| Surr: 2-Fluorophenol                   | 83.2    | 11.9-130 |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| Surr: 4-Terphenyl-d14                  | 77.4    | 25.1-149 |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| Surr: Nitrobenzene-d5                  | 97.0    | 25.6-137 |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| Surr: Phenol-d5                        | 81.4    | 20.3-132 |      | %REC  | 1  | 10/21/2012 10:37:40 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00154 | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Toluene                                | 0.00597 | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Ethylbenzene                           | 0.00224 | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Xylenes, Total                         | 0.0112  | 0.00221  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 1,2,4-Trimethylbenzene                 | 0.00310 | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 1,3,5-Trimethylbenzene                 | 0.00111 | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Naphthalene                            | ND      | 0.00221  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00441  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00441  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Acetone                                | 0.128   | 0.0110   |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Bromobenzene                           | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Bromodichloromethane                   | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Bromoform                              | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Bromomethane                           | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| 2-Butanone                             | ND      | 0.0110   |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Carbon tetrachloride                   | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Chlorobenzene                          | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |
| Chloroethane                           | ND      | 0.00110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM  |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:05:00 PM

**Lab ID:** 1210692-021

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Chloromethane                          | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 2-Chlorotoluene                        | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Carbon disulfide                       | ND     | 0.0110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 4-Chlorotoluene                        | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| cis-1,2-DCE                            | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Dibromochloromethane                   | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Dibromomethane                         | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Dichlorodifluoromethane                | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1-Dichloroethane                     | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1-Dichloroethene                     | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,2-Dichloropropane                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,3-Dichloropropane                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 2,2-Dichloropropane                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1-Dichloropropene                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Hexachlorobutadiene                    | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Isopropylbenzene                       | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 4-Isopropyltoluene                     | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Methylene chloride                     | ND     | 0.00331 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| n-Butylbenzene                         | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 2-Hexanone                             | ND     | 0.0110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| n-Propylbenzene                        | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| sec-Butylbenzene                       | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Styrene                                | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0110  |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| tert-Butylbenzene                      | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| trans-1,2-DCE                          | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Trichloroethene (TCE)                  | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Trichlorofluoromethane                 | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:05:00 PM

**Lab ID:** 1210692-021

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Vinyl chloride                         | ND     | 0.00110 |      | mg/Kg | 1  | 10/16/2012 2:29:51 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.5   | 70-130  |      | %REC  | 1  | 10/16/2012 2:29:51 PM |
| Surr: 4-Bromofluorobenzene             | 104    | 70-130  |      | %REC  | 1  | 10/16/2012 2:29:51 PM |
| Surr: Dibromofluoromethane             | 102    | 70-130  |      | %REC  | 1  | 10/16/2012 2:29:51 PM |
| Surr: Toluene-d8                       | 101    | 70-130  |      | %REC  | 1  | 10/16/2012 2:29:51 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:25:00 PM

**Lab ID:** 1210692-022

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 16     | 10       |      | mg/Kg | 1   | 10/16/2012 7:08:35 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/16/2012 7:08:35 PM  |
| Surr: DNOP                                     | 92.8   | 77.6-140 |      | %REC  | 1   | 10/16/2012 7:08:35 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 3:24:06 AM  |
| Surr: BFB                                      | 97.9   | 84-116   |      | %REC  | 1   | 10/22/2012 3:24:06 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:31:11 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Barium                                         | 310    | 1.0      |      | mg/Kg | 10  | 11/2/2012 2:53:36 PM   |
| Beryllium                                      | 0.74   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Chromium                                       | 7.1    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Iron                                           | 10000  | 500      |      | mg/Kg | 500 | 11/2/2012 2:56:03 PM   |
| Lead                                           | 3.7    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Manganese                                      | 510    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:30:43 PM   |
| Nickel                                         | 6.1    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Vanadium                                       | 15     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| Zinc                                           | 13     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:27:47 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/21/2012 11:06:55 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:25:00 PM

**Lab ID:** 1210692-022

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:25:00 PM

**Lab ID:** 1210692-022

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 11:06:55 PM |
| Surr: 2,4,6-Tribromophenol             | 93.5    | 21.3-145 |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| Surr: 2-Fluorobiphenyl                 | 98.3    | 20-131   |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| Surr: 2-Fluorophenol                   | 86.2    | 11.9-130 |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| Surr: 4-Terphenyl-d14                  | 88.1    | 25.1-149 |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| Surr: Nitrobenzene-d5                  | 103     | 25.6-137 |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| Surr: Phenol-d5                        | 90.5    | 20.3-132 |      | %REC  | 1  | 10/21/2012 11:06:55 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00142 | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Toluene                                | 0.00586 | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Ethylbenzene                           | 0.00134 | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Xylenes, Total                         | 0.00573 | 0.00165  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 1,2,4-Trimethylbenzene                 | 0.00263 | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 1,3,5-Trimethylbenzene                 | 0.00102 | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Naphthalene                            | ND      | 0.00165  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00329  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00329  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Acetone                                | 0.0479  | 0.00823  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Bromobenzene                           | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Bromodichloromethane                   | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Bromoform                              | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Bromomethane                           | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| 2-Butanone                             | ND      | 0.00823  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Carbon tetrachloride                   | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Chlorobenzene                          | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |
| Chloroethane                           | ND      | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:25:00 PM

**Lab ID:** 1210692-022

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Chloromethane                          | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 2-Chlorotoluene                        | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Carbon disulfide                       | ND     | 0.00823  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 4-Chlorotoluene                        | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| cis-1,2-DCE                            | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Dibromochloromethane                   | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Dibromomethane                         | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Dichlorodifluoromethane                | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1-Dichloroethane                     | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1-Dichloroethene                     | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,2-Dichloropropane                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,3-Dichloropropane                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 2,2-Dichloropropane                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1-Dichloropropene                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Hexachlorobutadiene                    | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Isopropylbenzene                       | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 4-Isopropyltoluene                     | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Methylene chloride                     | ND     | 0.00247  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| n-Butylbenzene                         | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 2-Hexanone                             | ND     | 0.00823  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| n-Propylbenzene                        | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| sec-Butylbenzene                       | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Styrene                                | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00823  |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| tert-Butylbenzene                      | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| trans-1,2-DCE                          | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Trichloroethene (TCE)                  | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Trichlorofluoromethane                 | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:25:00 PM

**Lab ID:** 1210692-022

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Vinyl chloride                         | ND     | 0.000823 |      | mg/Kg | 1  | 10/16/2012 3:00:38 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.2   | 70-130   |      | %REC  | 1  | 10/16/2012 3:00:38 PM |
| Surr: 4-Bromofluorobenzene             | 103    | 70-130   |      | %REC  | 1  | 10/16/2012 3:00:38 PM |
| Surr: Dibromofluoromethane             | 94.1   | 70-130   |      | %REC  | 1  | 10/16/2012 3:00:38 PM |
| Surr: Toluene-d8                       | 86.1   | 70-130   |      | %REC  | 1  | 10/16/2012 3:00:38 PM |

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (2-4')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:35:00 PM

**Lab ID:** 1210692-023

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/16/2012 11:38:39 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/16/2012 11:38:39 AM |
| Surr: DNOP                                     | 97.8   | 77.6-140 |      | %REC  | 1   | 10/16/2012 11:38:39 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 3:52:51 AM  |
| Surr: BFB                                      | 98.3   | 84-116   |      | %REC  | 1   | 10/22/2012 3:52:51 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.17   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:33:04 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Barium                                         | 250    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:00:37 PM   |
| Beryllium                                      | 0.60   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Chromium                                       | 22     | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Cobalt                                         | 4.3    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:03:01 PM   |
| Lead                                           | 4.2    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Manganese                                      | 250    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:00:37 PM   |
| Nickel                                         | 7.0    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| Zinc                                           | 29     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:30:13 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 3:54:54 AM  |

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (2-4')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:35:00 PM

**Lab ID:** 1210692-023

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (2-4')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:35:00 PM

**Lab ID:** 1210692-023

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/21/2012 3:54:54 AM |
| Surr: 2,4,6-Tribromophenol             | 102    | 21.3-145 |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| Surr: 2-Fluorobiphenyl                 | 89.8   | 20-131   |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| Surr: 2-Fluorophenol                   | 88.3   | 11.9-130 |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| Surr: 4-Terphenyl-d14                  | 83.4   | 25.1-149 |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| Surr: Nitrobenzene-d5                  | 93.8   | 25.6-137 |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| Surr: Phenol-d5                        | 92.4   | 20.3-132 |      | %REC  | 1  | 10/21/2012 3:54:54 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Toluene                                | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Ethylbenzene                           | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Xylenes, Total                         | ND     | 0.00224  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Methyl tert-butyl ether (MTBE)         | 0.0199 | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Naphthalene                            | ND     | 0.00224  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1-Methylnaphthalene                    | ND     | 0.00448  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 2-Methylnaphthalene                    | ND     | 0.00448  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Acetone                                | 0.0716 | 0.0112   |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Bromobenzene                           | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Bromodichloromethane                   | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Bromoform                              | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Bromomethane                           | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 2-Butanone                             | ND     | 0.0112   |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Carbon tetrachloride                   | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Chlorobenzene                          | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Chloroethane                           | ND     | 0.00112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (2-4')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:35:00 PM

**Lab ID:** 1210692-023

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Chloromethane                          | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 2-Chlorotoluene                        | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Carbon disulfide                       | ND      | 0.0112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 4-Chlorotoluene                        | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| cis-1,2-DCE                            | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| cis-1,3-Dichloropropene                | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2-Dibromo-3-chloropropane            | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Dibromochloromethane                   | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Dibromomethane                         | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2-Dichlorobenzene                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,3-Dichlorobenzene                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,4-Dichlorobenzene                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Dichlorodifluoromethane                | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1-Dichloroethane                     | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1-Dichloroethene                     | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2-Dichloropropane                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,3-Dichloropropane                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 2,2-Dichloropropane                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1-Dichloropropene                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Hexachlorobutadiene                    | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Isopropylbenzene                       | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 4-Isopropyltoluene                     | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Methylene chloride                     | ND      | 0.00336 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| n-Butylbenzene                         | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 2-Hexanone                             | ND      | 0.0112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| n-Propylbenzene                        | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| sec-Butylbenzene                       | 0.00128 | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Styrene                                | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 4-Methyl-2-pentanone                   | ND      | 0.0112  |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| tert-Butylbenzene                      | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1,1,2-Tetrachloroethane              | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1,2,2-Tetrachloroethane              | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Tetrachloroethene (PCE)                | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| trans-1,2-DCE                          | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| trans-1,3-Dichloropropene              | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2,3-Trichlorobenzene                 | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1,1-Trichloroethane                  | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| 1,1,2-Trichloroethane                  | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Trichloroethene (TCE)                  | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Trichlorofluoromethane                 | ND      | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (2-4')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 2:35:00 PM

**Lab ID:** 1210692-023

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Vinyl chloride                         | ND     | 0.00112 |      | mg/Kg | 1  | 10/16/2012 3:31:30 PM |
| Surr: 1,2-Dichloroethane-d4            | 95.5   | 70-130  |      | %REC  | 1  | 10/16/2012 3:31:30 PM |
| Surr: 4-Bromofluorobenzene             | 128    | 70-130  |      | %REC  | 1  | 10/16/2012 3:31:30 PM |
| Surr: Dibromofluoromethane             | 105    | 70-130  |      | %REC  | 1  | 10/16/2012 3:31:30 PM |
| Surr: Toluene-d8                       | 102    | 70-130  |      | %REC  | 1  | 10/16/2012 3:31:30 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-024

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/16/2012 12:03:32 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/16/2012 12:03:32 PM |
| Surr: DNOP                                     | 99.1   | 77.6-140 |      | %REC  | 1   | 10/16/2012 12:03:32 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 4:21:35 AM  |
| Surr: BFB                                      | 95.4   | 84-116   |      | %REC  | 1   | 10/22/2012 4:21:35 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:34:52 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Barium                                         | 120    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:05:52 PM   |
| Beryllium                                      | 0.71   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Chromium                                       | 7.8    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:08:17 PM   |
| Lead                                           | 2.5    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Manganese                                      | 320    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:05:52 PM   |
| Nickel                                         | 6.6    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Vanadium                                       | 17     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| Zinc                                           | 14     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:32:38 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:23:52 AM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-024

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-024

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:23:52 AM |
| Surr: 2,4,6-Tribromophenol             | 103     | 21.3-145 |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| Surr: 2-Fluorobiphenyl                 | 96.9    | 20-131   |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| Surr: 2-Fluorophenol                   | 88.8    | 11.9-130 |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| Surr: 4-Terphenyl-d14                  | 84.5    | 25.1-149 |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| Surr: Nitrobenzene-d5                  | 99.5    | 25.6-137 |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| Surr: Phenol-d5                        | 94.5    | 20.3-132 |      | %REC  | 1  | 10/21/2012 4:23:52 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Toluene                                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Ethylbenzene                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Xylenes, Total                         | ND      | 0.00229  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Methyl tert-butyl ether (MTBE)         | 0.00300 | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Naphthalene                            | ND      | 0.00229  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1-Methylnaphthalene                    | ND      | 0.00457  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 2-Methylnaphthalene                    | ND      | 0.00457  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Acetone                                | 0.0561  | 0.0114   |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Bromobenzene                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Bromodichloromethane                   | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Bromoform                              | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Bromomethane                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 2-Butanone                             | ND      | 0.0114   |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Carbon tetrachloride                   | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Chlorobenzene                          | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Chloroethane                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-024

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Chloromethane                          | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 2-Chlorotoluene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Carbon disulfide                       | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 4-Chlorotoluene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| cis-1,2-DCE                            | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Dibromochloromethane                   | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Dibromomethane                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Dichlorodifluoromethane                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1-Dichloroethane                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1-Dichloroethene                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,3-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 2,2-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1-Dichloropropene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Hexachlorobutadiene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Isopropylbenzene                       | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 4-Isopropyltoluene                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Methylene chloride                     | ND     | 0.00343 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| n-Butylbenzene                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 2-Hexanone                             | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| n-Propylbenzene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| sec-Butylbenzene                       | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Styrene                                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| tert-Butylbenzene                      | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| trans-1,2-DCE                          | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Trichloroethene (TCE)                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Trichlorofluoromethane                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6')

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-024

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Vinyl chloride                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:02:26 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.7   | 70-130  |      | %REC  | 1  | 10/16/2012 4:02:26 PM |
| Surr: 4-Bromofluorobenzene             | 90.5   | 70-130  |      | %REC  | 1  | 10/16/2012 4:02:26 PM |
| Surr: Dibromofluoromethane             | 95.0   | 70-130  |      | %REC  | 1  | 10/16/2012 4:02:26 PM |
| Surr: Toluene-d8                       | 88.5   | 70-130  |      | %REC  | 1  | 10/16/2012 4:02:26 PM |

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P Sample pH greater than 2  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6") DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-025

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/16/2012 12:28:37 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 48       |      | mg/Kg | 1   | 10/16/2012 12:28:37 PM |
| Surr: DNOP                                     | 97.6   | 77.6-140 |      | %REC  | 1   | 10/16/2012 12:28:37 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 4:50:17 AM  |
| Surr: BFB                                      | 91.2   | 84-116   |      | %REC  | 1   | 10/22/2012 4:50:17 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:40:11 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Barium                                         | 290    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:11:09 PM   |
| Beryllium                                      | 0.68   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Chromium                                       | 7.3    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:13:34 PM   |
| Lead                                           | 3.0    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Manganese                                      | 310    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:11:09 PM   |
| Nickel                                         | 6.5    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Vanadium                                       | 16     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| Zinc                                           | 14     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:35:02 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/21/2012 4:52:46 AM  |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6") DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-025

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6") DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-025

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/21/2012 4:52:46 AM |
| Surr: 2,4,6-Tribromophenol             | 90.7    | 21.3-145 |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| Surr: 2-Fluorobiphenyl                 | 92.2    | 20-131   |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| Surr: 2-Fluorophenol                   | 91.5    | 11.9-130 |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| Surr: 4-Terphenyl-d14                  | 84.4    | 25.1-149 |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| Surr: Nitrobenzene-d5                  | 95.9    | 25.6-137 |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| Surr: Phenol-d5                        | 96.3    | 20.3-132 |      | %REC  | 1  | 10/21/2012 4:52:46 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Toluene                                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Ethylbenzene                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Xylenes, Total                         | ND      | 0.00227  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Methyl tert-butyl ether (MTBE)         | 0.00604 | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Naphthalene                            | ND      | 0.00227  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1-Methylnaphthalene                    | ND      | 0.00455  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 2-Methylnaphthalene                    | ND      | 0.00455  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Acetone                                | 0.0645  | 0.0114   |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Bromobenzene                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Bromodichloromethane                   | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Bromoform                              | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Bromomethane                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 2-Butanone                             | ND      | 0.0114   |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Carbon tetrachloride                   | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Chlorobenzene                          | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Chloroethane                           | ND      | 0.00114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6") DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-025

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Chloromethane                          | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 2-Chlorotoluene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Carbon disulfide                       | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 4-Chlorotoluene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| cis-1,2-DCE                            | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Dibromochloromethane                   | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Dibromomethane                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Dichlorodifluoromethane                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1-Dichloroethane                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1-Dichloroethene                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,3-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 2,2-Dichloropropane                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1-Dichloropropene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Hexachlorobutadiene                    | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Isopropylbenzene                       | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 4-Isopropyltoluene                     | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Methylene chloride                     | ND     | 0.00341 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| n-Butylbenzene                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 2-Hexanone                             | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| n-Propylbenzene                        | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| sec-Butylbenzene                       | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Styrene                                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0114  |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| tert-Butylbenzene                      | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| trans-1,2-DCE                          | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Trichloroethene (TCE)                  | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Trichlorofluoromethane                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-13 (4-6') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 3:00:00 PM

**Lab ID:** 1210692-025

**Matrix:** SOIL

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Vinyl chloride                         | ND     | 0.00114 |      | mg/Kg | 1  | 10/16/2012 4:33:18 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.1   | 70-130  |      | %REC  | 1  | 10/16/2012 4:33:18 PM |
| Surr: 4-Bromofluorobenzene             | 102    | 70-130  |      | %REC  | 1  | 10/16/2012 4:33:18 PM |
| Surr: Dibromofluoromethane             | 97.5   | 70-130  |      | %REC  | 1  | 10/16/2012 4:33:18 PM |
| Surr: Toluene-d8                       | 84.7   | 70-130  |      | %REC  | 1  | 10/16/2012 4:33:18 PM |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 GW

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 10:00:00 AM

**Lab ID:** 1210692-026

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |        |          |      |       |     | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)            | 1.0    | 1.0      |      | mg/L  | 1   | 10/16/2012 11:18:43 PM |
| Motor Oil Range Organics (MRO)         | ND     | 5.0      |      | mg/L  | 1   | 10/16/2012 11:18:43 PM |
| Surr: DNOP                             | 112    | 79.5-166 |      | %REC  | 1   | 10/16/2012 11:18:43 PM |
| <b>EPA METHOD 300.0: ANIONS</b>        |        |          |      |       |     | Analyst: <b>SRM</b>    |
| Fluoride                               | 1.4    | 0.50     |      | mg/L  | 5   | 10/17/2012 10:22:10 PM |
| Chloride                               | 1100   | 50       |      | mg/L  | 100 | 10/17/2012 10:09:45 PM |
| Sulfate                                | 500    | 10       |      | mg/L  | 20  | 10/15/2012 1:54:26 PM  |
| <b>EPA METHOD 200.7: METALS</b>        |        |          |      |       |     | Analyst: <b>JLF</b>    |
| Barium                                 | 0.24   | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Beryllium                              | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Cadmium                                | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Chromium                               | ND     | 0.0060   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Cobalt                                 | 0.026  | 0.0060   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Iron                                   | 2.5    | 0.10     | *    | mg/L  | 5   | 10/23/2012 1:33:03 PM  |
| Manganese                              | 1.1    | 0.010    | *    | mg/L  | 5   | 10/19/2012 9:12:15 PM  |
| Nickel                                 | 0.26   | 0.010    | *    | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Silver                                 | ND     | 0.0050   |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Vanadium                               | ND     | 0.050    |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| Zinc                                   | 0.023  | 0.010    |      | mg/L  | 1   | 10/19/2012 9:09:18 PM  |
| <b>EPA 200.8: METALS</b>               |        |          |      |       |     | Analyst: <b>DBD</b>    |
| Antimony                               | ND     | 0.0025   |      | mg/L  | 2.5 | 10/24/2012 5:14:06 PM  |
| Arsenic                                | 0.0082 | 0.0025   |      | mg/L  | 2.5 | 10/24/2012 5:14:06 PM  |
| Lead                                   | 0.0041 | 0.0025   |      | mg/L  | 2.5 | 10/24/2012 5:14:06 PM  |
| Selenium                               | 0.0072 | 0.0025   |      | mg/L  | 2.5 | 11/12/2012 7:36:28 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |        |          |      |       |     | Analyst: <b>IDC</b>    |
| Mercury                                | ND     | 0.00020  |      | mg/L  | 1   | 10/24/2012 7:35:33 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |     | Analyst: <b>JDC</b>    |
| Acenaphthene                           | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Acenaphthylene                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Aniline                                | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Anthracene                             | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Azobenzene                             | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benz(a)anthracene                      | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzo(a)pyrene                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzo(b)fluoranthene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzo(g,h,i)perylene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzo(k)fluoranthene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzoic acid                           | ND     | 20       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |
| Benzyl alcohol                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 7:38:38 PM  |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 GW

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 10:00:00 AM

**Lab ID:** 1210692-026

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Di-n-octyl phthalate                   | ND     | 20 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-37 GW

Project: SWMU NO.1

Collection Date: 10/11/2012 10:00:00 AM

Lab ID: 1210692-026

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 7:38:38 PM |
| Surr: 2,4,6-Tribromophenol             | 94.8   | 42.9-124  |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| Surr: 2-Fluorobiphenyl                 | 87.0   | 40-108    |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| Surr: 2-Fluorophenol                   | 59.8   | 23.6-94.8 |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| Surr: 4-Terphenyl-d14                  | 82.4   | 41.9-103  |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| Surr: Nitrobenzene-d5                  | 85.3   | 42.6-114  |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| Surr: Phenol-d5                        | 45.8   | 20.3-74.7 |      | %REC  | 1  | 10/20/2012 7:38:38 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF          |
| Benzene                                | 1.1    | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Methyl tert-butyl ether (MTBE)         | 130    | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Acetone                                | 39     | 10        |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 1-37 GW

Project: SWMU NO.1

Collection Date: 10/11/2012 10:00:00 AM

Lab ID: 1210692-026

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF          |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Isopropylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 4-Isopropyltoluene                 | 12     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Methylene Chloride                 | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| n-Butylbenzene                     | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| n-Propylbenzene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| sec-Butylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Styrene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| tert-Butylbenzene                  | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| trans-1,2-DCE                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2,3-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-37 GW

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 10:00:00 AM

**Lab ID:** 1210692-026

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 1:11:24 AM |
| Surr: 1,2-Dichloroethane-d4             | 94.5   | 70-130 |      | %REC  | 1  | 10/18/2012 1:11:24 AM |
| Surr: 4-Bromofluorobenzene              | 92.7   | 70-130 |      | %REC  | 1  | 10/18/2012 1:11:24 AM |
| Surr: Dibromofluoromethane              | 95.6   | 70-130 |      | %REC  | 1  | 10/18/2012 1:11:24 AM |
| Surr: Toluene-d8                        | 95.4   | 70-130 |      | %REC  | 1  | 10/18/2012 1:11:24 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)           | 0.56   | 0.050  |      | mg/L  | 1  | 10/20/2012 7:59:17 PM |
| Surr: BFB                               | 93.0   | 70-130 |      | %REC  | 1  | 10/20/2012 7:59:17 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101112

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 3:45:00 PM

**Lab ID:** 1210692-027

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |        |          |      |       |     | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)            | ND     | 1.0      |      | mg/L  | 1   | 10/16/2012 11:43:35 PM |
| Motor Oil Range Organics (MRO)         | ND     | 5.0      |      | mg/L  | 1   | 10/16/2012 11:43:35 PM |
| Surr: DNOP                             | 106    | 79.5-166 |      | %REC  | 1   | 10/16/2012 11:43:35 PM |
| <b>EPA METHOD 300.0: ANIONS</b>        |        |          |      |       |     | Analyst: <b>SRM</b>    |
| Fluoride                               | ND     | 0.10     |      | mg/L  | 1   | 10/17/2012 10:34:35 PM |
| Chloride                               | ND     | 0.50     |      | mg/L  | 1   | 10/17/2012 10:34:35 PM |
| Sulfate                                | ND     | 0.50     |      | mg/L  | 1   | 10/17/2012 10:34:35 PM |
| <b>EPA METHOD 200.7: METALS</b>        |        |          |      |       |     | Analyst: <b>JLF</b>    |
| Barium                                 | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Beryllium                              | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Cadmium                                | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Chromium                               | ND     | 0.0060   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Cobalt                                 | ND     | 0.0060   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Iron                                   | 0.13   | 0.020    |      | mg/L  | 1   | 10/23/2012 1:37:58 PM  |
| Manganese                              | ND     | 0.0020   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Nickel                                 | ND     | 0.010    |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Silver                                 | ND     | 0.0050   |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Vanadium                               | ND     | 0.050    |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| Zinc                                   | ND     | 0.010    |      | mg/L  | 1   | 10/19/2012 9:15:39 PM  |
| <b>EPA 200.8: METALS</b>               |        |          |      |       |     | Analyst: <b>DBD</b>    |
| Antimony                               | ND     | 0.0025   |      | mg/L  | 2.5 | 10/19/2012 3:29:45 PM  |
| Arsenic                                | ND     | 0.0025   |      | mg/L  | 2.5 | 10/19/2012 3:29:45 PM  |
| Lead                                   | ND     | 0.0025   |      | mg/L  | 2.5 | 10/19/2012 3:29:45 PM  |
| Selenium                               | ND     | 0.0025   |      | mg/L  | 2.5 | 10/19/2012 3:29:45 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |        |          |      |       |     | Analyst: <b>IDC</b>    |
| Mercury                                | ND     | 0.00020  |      | mg/L  | 1   | 10/24/2012 7:37:19 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |     | Analyst: <b>JDC</b>    |
| Acenaphthene                           | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Acenaphthylene                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Aniline                                | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Anthracene                             | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Azobenzene                             | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benz(a)anthracene                      | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzo(a)pyrene                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzo(b)fluoranthene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzo(g,h,i)perylene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzo(k)fluoranthene                   | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzoic acid                           | ND     | 20       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |
| Benzyl alcohol                         | ND     | 10       |      | µg/L  | 1   | 10/20/2012 8:07:55 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101112

Project: SWMU NO.1

Collection Date: 10/11/2012 3:45:00 PM

Lab ID: 1210692-027

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Di-n-octyl phthalate                   | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101112

Project: SWMU NO.1

Collection Date: 10/11/2012 3:45:00 PM

Lab ID: 1210692-027

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:07:55 PM |
| Surr: 2,4,6-Tribromophenol             | 96.8   | 42.9-124  |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| Surr: 2-Fluorobiphenyl                 | 87.7   | 40-108    |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| Surr: 2-Fluorophenol                   | 61.3   | 23.6-94.8 |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| Surr: 4-Terphenyl-d14                  | 84.0   | 41.9-103  |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| Surr: Nitrobenzene-d5                  | 96.4   | 42.6-114  |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| Surr: Phenol-d5                        | 49.5   | 20.3-74.7 |      | %REC  | 1  | 10/20/2012 8:07:55 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF          |
| Benzene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Acetone                                | ND     | 10        |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101112

**Project:** SWMU NO.1

**Collection Date:** 10/11/2012 3:45:00 PM

**Lab ID:** 1210692-027

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF          |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Isopropylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Methylene Chloride                 | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| n-Butylbenzene                     | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| n-Propylbenzene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| sec-Butylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Styrene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| tert-Butylbenzene                  | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| trans-1,2-DCE                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2,3-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101112

Project: SWMU NO.1

Collection Date: 10/11/2012 3:45:00 PM

Lab ID: 1210692-027

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 2:07:44 AM |
| Surr: 1,2-Dichloroethane-d4             | 89.8   | 70-130 |      | %REC  | 1  | 10/18/2012 2:07:44 AM |
| Surr: 4-Bromofluorobenzene              | 95.7   | 70-130 |      | %REC  | 1  | 10/18/2012 2:07:44 AM |
| Surr: Dibromofluoromethane              | 93.3   | 70-130 |      | %REC  | 1  | 10/18/2012 2:07:44 AM |
| Surr: Toluene-d8                        | 93.5   | 70-130 |      | %REC  | 1  | 10/18/2012 2:07:44 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 8:27:45 PM |
| Surr: BFB                               | 93.1   | 70-130 |      | %REC  | 1  | 10/20/2012 8:27:45 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101212

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 4:20:00 PM

**Lab ID:** 1210692-028

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |        |          |      |       |    | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)            | ND     | 1.0      |      | mg/L  | 1  | 10/17/2012 12:08:42 AM |
| Motor Oil Range Organics (MRO)         | ND     | 5.0      |      | mg/L  | 1  | 10/17/2012 12:08:42 AM |
| Surr: DNOP                             | 117    | 79.5-166 |      | %REC  | 1  | 10/17/2012 12:08:42 AM |
| <b>EPA METHOD 300.0: ANIONS</b>        |        |          |      |       |    | Analyst: <b>JRR</b>    |
| Fluoride                               | ND     | 0.10     |      | mg/L  | 1  | 10/15/2012 5:13:00 PM  |
| Chloride                               | ND     | 0.50     |      | mg/L  | 1  | 10/15/2012 5:13:00 PM  |
| Sulfate                                | ND     | 0.50     |      | mg/L  | 1  | 10/15/2012 5:13:00 PM  |
| <b>EPA METHOD 200.7: METALS</b>        |        |          |      |       |    | Analyst: <b>JLF</b>    |
| Barium                                 | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Beryllium                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Cadmium                                | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Chromium                               | ND     | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Cobalt                                 | ND     | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Iron                                   | ND     | 0.020    |      | mg/L  | 1  | 10/18/2012 1:59:51 PM  |
| Manganese                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Nickel                                 | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Silver                                 | ND     | 0.0050   |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Vanadium                               | ND     | 0.050    |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| Zinc                                   | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:19:39 PM  |
| <b>EPA 200.8: METALS</b>               |        |          |      |       |    | Analyst: <b>DBD</b>    |
| Antimony                               | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 7:18:12 PM  |
| Arsenic                                | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 7:18:12 PM  |
| Lead                                   | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 7:18:12 PM  |
| Selenium                               | ND     | 0.0010   |      | mg/L  | 1  | 10/25/2012 7:18:12 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |        |          |      |       |    | Analyst: <b>IDC</b>    |
| Mercury                                | ND     | 0.00020  |      | mg/L  | 1  | 10/24/2012 7:39:06 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: <b>JDC</b>    |
| Acenaphthene                           | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Acenaphthylene                         | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Aniline                                | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Anthracene                             | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Azobenzene                             | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benz(a)anthracene                      | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzo(a)pyrene                         | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzo(b)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzo(g,h,i)perylene                   | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzo(k)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzoic acid                           | ND     | 20       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |
| Benzyl alcohol                         | ND     | 10       |      | µg/L  | 1  | 10/20/2012 8:37:13 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101212

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 4:20:00 PM

**Lab ID:** 1210692-028

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Di-n-octyl phthalate                   | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101212

Project: SWMU NO.1

Collection Date: 10/12/2012 4:20:00 PM

Lab ID: 1210692-028

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/20/2012 8:37:13 PM |
| Surr: 2,4,6-Tribromophenol             | 90.5   | 42.9-124  |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| Surr: 2-Fluorobiphenyl                 | 87.6   | 40-108    |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| Surr: 2-Fluorophenol                   | 56.6   | 23.6-94.8 |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| Surr: 4-Terphenyl-d14                  | 84.3   | 41.9-103  |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| Surr: Nitrobenzene-d5                  | 84.6   | 42.6-114  |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| Surr: Phenol-d5                        | 47.1   | 20.3-74.7 |      | %REC  | 1  | 10/20/2012 8:37:13 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF          |
| Benzene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Acetone                                | ND     | 10        |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101212

Project: SWMU NO.1

Collection Date: 10/12/2012 4:20:00 PM

Lab ID: 1210692-028

Matrix: AQUEOUS

Received Date: 10/13/2012 8:30:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF          |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Isopropylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Methylene Chloride                 | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| n-Butylbenzene                     | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| n-Propylbenzene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| sec-Butylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Styrene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| tert-Butylbenzene                  | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| trans-1,2-DCE                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2,3-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101212

**Project:** SWMU NO.1

**Collection Date:** 10/12/2012 4:20:00 PM

**Lab ID:** 1210692-028

**Matrix:** AQUEOUS

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 2:35:59 AM |
| Surr: 1,2-Dichloroethane-d4             | 93.5   | 70-130 |      | %REC  | 1  | 10/18/2012 2:35:59 AM |
| Surr: 4-Bromofluorobenzene              | 92.1   | 70-130 |      | %REC  | 1  | 10/18/2012 2:35:59 AM |
| Surr: Dibromofluoromethane              | 94.7   | 70-130 |      | %REC  | 1  | 10/18/2012 2:35:59 AM |
| Surr: Toluene-d8                        | 95.9   | 70-130 |      | %REC  | 1  | 10/18/2012 2:35:59 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 8:56:02 PM |
| Surr: BFB                               | 91.6   | 70-130 |      | %REC  | 1  | 10/20/2012 8:56:02 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** Trip Blank

**Project:** SWMU NO.1

**Collection Date:**

**Lab ID:** 1210692-029

**Matrix:** TRIP BLANK

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF          |
| Benzene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Toluene                            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Ethylbenzene                       | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Methyl tert-butyl ether (MTBE)     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2,4-Trimethylbenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,3,5-Trimethylbenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2-Dichloroethane (EDC)           | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2-Dibromoethane (EDB)            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Naphthalene                        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1-Methylnaphthalene                | ND     | 4.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 2-Methylnaphthalene                | ND     | 4.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Acetone                            | ND     | 10  |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Bromobenzene                       | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Bromodichloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Bromoform                          | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Bromomethane                       | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 2-Butanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210692

Date Reported: 11/19/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** Trip Blank

**Project:** SWMU NO.1

**Collection Date:**

**Lab ID:** 1210692-029

**Matrix:** TRIP BLANK

**Received Date:** 10/13/2012 8:30:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: DJF          |
| Isopropylbenzene                        | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 4-Isopropyltoluene                      | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 4-Methyl-2-pentanone                    | ND     | 10     |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Methylene Chloride                      | ND     | 3.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| n-Butylbenzene                          | ND     | 3.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| n-Propylbenzene                         | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| sec-Butylbenzene                        | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Styrene                                 | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| tert-Butylbenzene                       | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1,1,2-Tetrachloroethane               | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1,2,2-Tetrachloroethane               | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Tetrachloroethene (PCE)                 | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| trans-1,2-DCE                           | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| trans-1,3-Dichloropropene               | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2,3-Trichlorobenzene                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2,4-Trichlorobenzene                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1,1-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/18/2012 5:27:32 AM |
| Surr: 1,2-Dichloroethane-d4             | 90.3   | 70-130 |      | %REC  | 1  | 10/18/2012 5:27:32 AM |
| Surr: 4-Bromofluorobenzene              | 94.9   | 70-130 |      | %REC  | 1  | 10/18/2012 5:27:32 AM |
| Surr: Dibromofluoromethane              | 91.9   | 70-130 |      | %REC  | 1  | 10/18/2012 5:27:32 AM |
| Surr: Toluene-d8                        | 93.0   | 70-130 |      | %REC  | 1  | 10/18/2012 5:27:32 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: RAA          |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 9:24:15 PM |
| Surr: BFB                               | 99.9   | 70-130 |      | %REC  | 1  | 10/20/2012 9:24:15 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-001                    | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-001D / SWMU 1-20 (0-0.5) | Sampling Time | 12:20 PM   |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.247      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1.9                              | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                      |               |            |                    |                    |           |           |
|------------------|--------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-002                        | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-002D / SWMU 1-20 (0-0.5) DUP | Sampling Time | 12:20 PM   |                    |                    |           |           |
| Matrix           | Soil                                 |               |            |                    |                    |           |           |
| Comments         |                                      |               |            |                    |                    |           |           |
| Parameter        | Result                               | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                   | mg/Kg         | 0.277      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1.9                                  | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-003                    | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-003D / SWMU 1-20 (1.5-2) | Sampling Time | 12:30 PM   |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.256      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 4.9                              | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                |               |            |                    |                    |           |           |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-004                  | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-004D / SWMU 1-20 (4-6) | Sampling Time | 12:45 PM   |                    |                    |           |           |
| Matrix           | Soil                           |               |            |                    |                    |           |           |
| Comments         |                                |               |            |                    |                    |           |           |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                             | mg/Kg         | 0.278      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 10.4                           | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-005                    | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-005D / SWMU 1-20 (10-12) | Sampling Time | 1:00 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.293      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 14.7                             | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-006                    | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-006D / SWMU 1-38 (0-0.5) | Sampling Time | 2:20 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.995                            | mg/Kg         | 0.27       | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 7.9                              | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-007                    | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-007D / SWMU 1-38 (1.5-2) | Sampling Time | 2:30 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.299                            | mg/Kg         | 0.284      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 12.5                             | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

|                  |                                |               |            |                    |                    |           |           |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-008                  | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-008D / SWMU 1-38 (6-8) | Sampling Time | 2:45 PM    |                    |                    |           |           |
| Matrix           | Soil                           |               |            |                    |                    |           |           |
| Comments         |                                |               |            |                    |                    |           |           |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                             | mg/Kg         | 0.293      | 10/25/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 17                             | Percent       |            | 10/24/2012         | CRW                | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
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ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-009                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-009D / SWMU 1-27 (0-0.5) | Sampling Time | 9:00 AM    |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | 0.282                            | mg/Kg         | 0.258      | 10/25/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 2.9                              | Percent       |            | 10/24/2012         | CRW                | %moisture |           |  |

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-010                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-010D / SWMU 1-27 (1.5-2) | Sampling Time | 9:15 AM    |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | ND                               | mg/Kg         | 0.26       | 10/25/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 4.1                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-011                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-011D / SWMU 1-28 (0-0.5) | Sampling Time | 9:50 AM    |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | 1.43                             | mg/Kg         | 0.258      | 10/25/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 3.6                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-012                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-012D / SWMU 1-28 (1.5-2) | Sampling Time | 10:10 AM   |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | ND                               | mg/Kg         | 0.267      | 10/25/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 6.5                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                         |               |            |                    |                    |           |           |
|------------------|-----------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-013                           | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-013D / SWMU 1-28<br>(1.5-2) DUP | Sampling Time | 10:10 AM   |                    |                    |           |           |
| Matrix           | Soil                                    |               |            |                    |                    |           |           |
| Comments         |                                         |               |            |                    |                    |           |           |
| Parameter        | Result                                  | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                      | mg/Kg         | 0.262      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 5                                       | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                     |               |            |                    |                    |           |           |
|------------------|-------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-014                       | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-014D / SWMU 1-30<br>(0-0.5) | Sampling Time | 11:40 AM   |                    |                    |           |           |
| Matrix           | Soil                                |               |            |                    |                    |           |           |
| Comments         |                                     |               |            |                    |                    |           |           |
| Parameter        | Result                              | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.633                               | mg/Kg         | 0.26       | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 4.1                                 | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                     |               |            |                    |                    |           |           |
|------------------|-------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-015                       | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-015D / SWMU 1-30<br>(1.5-2) | Sampling Time | 12:00 PM   |                    |                    |           |           |
| Matrix           | Soil                                |               |            |                    |                    |           |           |
| Comments         |                                     |               |            |                    |                    |           |           |
| Parameter        | Result                              | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                  | mg/Kg         | 0.274      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 9                                   | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                   |               |            |                    |                    |           |           |
|------------------|-----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-016                     | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-016D / SWMU 1-30<br>(4-6) | Sampling Time | 12:10 PM   |                    |                    |           |           |
| Matrix           | Soil                              |               |            |                    |                    |           |           |
| Comments         |                                   |               |            |                    |                    |           |           |
| Parameter        | Result                            | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                | mg/Kg         | 0.282      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 12.1                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-017                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-017D / SWMU 1-35 (0-0.5) | Sampling Time | 12:45 PM   |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | 0.276                            | mg/Kg         | 0.263      | 10/26/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 9.9                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-018                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-018D / SWMU 1-35 (1.5-2) | Sampling Time | 1:00 PM    |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | 0.287                            | mg/Kg         | 0.278      | 10/26/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 10                               | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

|                  |                                |               |            |                    |                    |           |           |  |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-019                  | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-019D / SWMU 1-35 (4-6) | Sampling Time | 1:10 PM    |                    |                    |           |           |  |
| Matrix           | Soil                           |               |            |                    |                    |           |           |  |
| Comments         |                                |               |            |                    |                    |           |           |  |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | ND                             | mg/Kg         | 0.287      | 10/26/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 13.8                           | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

|                  |                                  |               |            |                    |                    |           |           |  |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|--|
| Sample Number    | 121017007-020                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |  |
| Client Sample ID | 1210692-021D / SWMU 1-13 (0-0.5) | Sampling Time | 2:05 PM    |                    |                    |           |           |  |
| Matrix           | Soil                             |               |            |                    |                    |           |           |  |
| Comments         |                                  |               |            |                    |                    |           |           |  |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |  |
| Cyanide          | 0.326                            | mg/Kg         | 0.264      | 10/26/2012         | CRW                | EPA 335.4 |           |  |
| %moisture        | 6.5                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |  |

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121017007  
**Project Name:** 1210692

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-021                    | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-022D / SWMU 1-13 (1.5-2) | Sampling Time | 2:25 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.271      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 8.3                              | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                |               |            |                    |                    |           |           |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-022                  | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-023D / SWMU 1-13 (2-4) | Sampling Time | 2:35 PM    |                    |                    |           |           |
| Matrix           | Soil                           |               |            |                    |                    |           |           |
| Comments         |                                |               |            |                    |                    |           |           |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                             | mg/Kg         | 0.279      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 11.5                           | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                |               |            |                    |                    |           |           |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-023                  | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-024D / SWMU 1-13 (4-6) | Sampling Time | 3:00 PM    |                    |                    |           |           |
| Matrix           | Soil                           |               |            |                    |                    |           |           |
| Comments         |                                |               |            |                    |                    |           |           |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                             | mg/Kg         | 0.284      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 13.7                           | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

|                  |                                    |               |            |                    |                    |           |           |
|------------------|------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-024                      | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-025D / SWMU 1-13 (4-6) DUP | Sampling Time | 3:00 PM    |                    |                    |           |           |
| Matrix           | Soil                               |               |            |                    |                    |           |           |
| Comments         |                                    |               |            |                    |                    |           |           |
| Parameter        | Result                             | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                 | mg/Kg         | 0.292      | 10/26/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 14.9                               | Percent       |            | 10/30/2012         | CRW                | %moisture |           |

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Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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**Batch #:** 121017007  
**Project Name:** 1210692

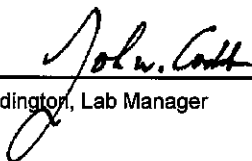
## Analytical Results Report

|                  |                                |               |            |                    |                    |           |           |
|------------------|--------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-025                  | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-026F / SWMU 1-37<br>GW | Sampling Time | 10:00 AM   |                    |                    |           |           |
| Matrix           | Water                          |               |            |                    |                    |           |           |
| Comments         |                                |               |            |                    |                    |           |           |
| Parameter        | Result                         | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.0309                         | mg/L          | 0.01       | 10/24/2012         | CRW                | EPA 335.4 |           |

|                  |                         |               |            |                    |                    |           |           |
|------------------|-------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-026           | Sampling Date | 10/11/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-027F / EB101112 | Sampling Time | 3:45 PM    |                    |                    |           |           |
| Matrix           | Water                   |               |            |                    |                    |           |           |
| Comments         |                         |               |            |                    |                    |           |           |
| Parameter        | Result                  | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                      | mg/L          | 0.01       | 10/24/2012         | CRW                | EPA 335.4 |           |

|                  |                         |               |            |                    |                    |           |           |
|------------------|-------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121017007-027           | Sampling Date | 10/12/2012 | Date/Time Received | 10/16/2012 1:16 PM |           |           |
| Client Sample ID | 1210692-028F / EB101212 | Sampling Time | 4:20 PM    |                    |                    |           |           |
| Matrix           | Water                   |               |            |                    |                    |           |           |
| Comments         |                         |               |            |                    |                    |           |           |
| Parameter        | Result                  | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                      | mg/L          | 0.01       | 10/26/2012         | CRW                | EPA 335.4 |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6311           |           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/17/2012 |           |             | SeqNo: 181710                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Barium     | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Beryllium  | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Cadmium    | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Chromium   | ND     | 0.0060                    |           |             |                                    |          |             |      |          |      |
| Cobalt     | ND     | 0.0060                    |           |             |                                    |          |             |      |          |      |
| Manganese  | ND     | 0.0020                    |           |             |                                    |          |             |      |          |      |
| Nickel     | ND     | 0.010                     |           |             |                                    |          |             |      |          |      |
| Silver     | ND     | 0.0050                    |           |             |                                    |          |             |      |          |      |
| Vanadium   | ND     | 0.050                     |           |             |                                    |          |             |      |          |      |
| Zinc       | ND     | 0.010                     |           |             |                                    |          |             |      |          |      |

|            |        |        |                           |             |                                    |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6311           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/17/2012 |             | SeqNo: 181711                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Barium     | 0.50   | 0.0020 | 0.5000                    | 0           | 101                                | 85       | 115         |      |          |      |
| Beryllium  | 0.51   | 0.0020 | 0.5000                    | 0           | 103                                | 85       | 115         |      |          |      |
| Cadmium    | 0.51   | 0.0020 | 0.5000                    | 0           | 102                                | 85       | 115         |      |          |      |
| Chromium   | 0.49   | 0.0060 | 0.5000                    | 0           | 98.9                               | 85       | 115         |      |          |      |
| Cobalt     | 0.49   | 0.0060 | 0.5000                    | 0           | 97.1                               | 85       | 115         |      |          |      |
| Manganese  | 0.49   | 0.0020 | 0.5000                    | 0           | 98.1                               | 85       | 115         |      |          |      |
| Nickel     | 0.48   | 0.010  | 0.5000                    | 0           | 95.9                               | 85       | 115         |      |          |      |
| Silver     | 0.10   | 0.0050 | 0.1000                    | 0           | 102                                | 85       | 115         |      |          |      |
| Vanadium   | 0.52   | 0.050  | 0.5000                    | 0           | 104                                | 85       | 115         |      |          |      |
| Zinc       | 0.49   | 0.010  | 0.5000                    | 0           | 98.4                               | 85       | 115         |      |          |      |

|            |                |        |                           |             |                                    |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210572-018AMS |        | SampType: MS              |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6311           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/17/2012 |             | SeqNo: 181754                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cadmium    | 0.50           | 0.0020 | 0.5000                    | 0           | 101                                | 70       | 130         |      |          |      |
| Chromium   | 0.47           | 0.0060 | 0.5000                    | 0           | 95.0                               | 70       | 130         |      |          |      |
| Nickel     | 0.45           | 0.010  | 0.5000                    | 0.001290    | 90.7                               | 70       | 130         |      |          |      |
| Zinc       | 0.46           | 0.010  | 0.5000                    | 0           | 92.7                               | 70       | 130         |      |          |      |

|            |                 |     |                |             |      |           |                          |      |             |      |  |
|------------|-----------------|-----|----------------|-------------|------|-----------|--------------------------|------|-------------|------|--|
| Sample ID  | 1210572-018AMSD |     | SampType:      | MSD         |      | TestCode: | EPA Method 200.7: Metals |      |             |      |  |
| Client ID: | BatchQC         |     | Batch ID:      | R6311       |      | RunNo:    | 6311                     |      |             |      |  |
| Prep Date: |                 |     | Analysis Date: | 10/17/2012  |      | SeqNo:    | 181755                   |      | Units: mg/L |      |  |
| Analyte    | Result          | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit    | Qual |  |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                        |        |                |                   |      |           |                                 |      |                    |      |
|------------|------------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210572-018AMSD</b> |        | SampType:      | <b>MSD</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>         |        | Batch ID:      | <b>R6311</b>      |      | RunNo:    | <b>6311</b>                     |      |                    |      |
| Prep Date: |                        |        | Analysis Date: | <b>10/17/2012</b> |      | SeqNo:    | <b>181755</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                 | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Cadmium    | 0.50                   | 0.0020 | 0.5000         | 0                 | 99.7 | 70        | 130                             | 1.02 | 20                 |      |
| Chromium   | 0.47                   | 0.0060 | 0.5000         | 0                 | 93.9 | 70        | 130                             | 1.11 | 20                 |      |
| Nickel     | 0.46                   | 0.010  | 0.5000         | 0.001290          | 92.0 | 70        | 130                             | 1.48 | 20                 |      |
| Zinc       | 0.46                   | 0.010  | 0.5000         | 0                 | 91.7 | 70        | 130                             | 1.09 | 20                 |      |

|            |            |       |                |                   |      |           |                                 |      |                    |      |
|------------|------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>MB</b>  |       | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b> |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |            |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182483</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result     | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | ND         | 0.020 |                |                   |      |           |                                 |      |                    |      |

|            |             |       |                |                   |      |           |                                 |      |                    |      |
|------------|-------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>LCS</b>  |       | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>LCSW</b> |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |             |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182484</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result      | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.49        | 0.020 | 0.5000         | 0                 | 98.1 | 85        | 115                             |      |                    |      |

|            |                       |       |                |                   |      |           |                                 |      |                    |      |
|------------|-----------------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210513-001AMS</b> |       | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>        |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |                       |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182578</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.50                  | 0.020 | 0.5000         | 0                 | 100  | 70        | 130                             |      |                    |      |

|            |                        |       |                |                   |      |           |                                 |      |                    |      |
|------------|------------------------|-------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>1210513-001AMSD</b> |       | SampType:      | <b>MSD</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>         |       | Batch ID:      | <b>R6342</b>      |      | RunNo:    | <b>6342</b>                     |      |                    |      |
| Prep Date: |                        |       | Analysis Date: | <b>10/18/2012</b> |      | SeqNo:    | <b>182579</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                 | PQL   | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Iron       | 0.49                   | 0.020 | 0.5000         | 0                 | 98.8 | 70        | 130                             | 1.41 | 20                 |      |

|            |                   |        |                |                   |      |           |                                 |      |                    |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|------|--------------------|------|
| Sample ID  | <b>MB-4388</b>    |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |      |                    |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183397</b>                   |      | Units: <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD | RPDLimit           | Qual |
| Barium     | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Beryllium  | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Cadmium    | ND                | 0.0020 |                |                   |      |           |                                 |      |                    |      |
| Chromium   | ND                | 0.0060 |                |                   |      |           |                                 |      |                    |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                   |        |                |                   |      |           |                                 |        |             |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|--------|-------------|------|
| Sample ID  | <b>MB-4388</b>    |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 200.7: Metals</b> |        |             |      |
| Client ID: | <b>PBW</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |        |             |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183397</b>                   | Units: | <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD   | RPDLimit    | Qual |
| Cobalt     | ND                | 0.0060 |                |                   |      |           |                                 |        |             |      |
| Iron       | ND                | 0.020  |                |                   |      |           |                                 |        |             |      |
| Manganese  | ND                | 0.0020 |                |                   |      |           |                                 |        |             |      |
| Nickel     | ND                | 0.010  |                |                   |      |           |                                 |        |             |      |
| Silver     | ND                | 0.0050 |                |                   |      |           |                                 |        |             |      |
| Vanadium   | ND                | 0.050  |                |                   |      |           |                                 |        |             |      |
| Zinc       | ND                | 0.010  |                |                   |      |           |                                 |        |             |      |

|            |                   |        |                |                   |      |           |                                 |        |             |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|---------------------------------|--------|-------------|------|
| Sample ID  | <b>LCS-4388</b>   |        | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 200.7: Metals</b> |        |             |      |
| Client ID: | <b>LCSW</b>       |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |        |             |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183398</b>                   | Units: | <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD   | RPDLimit    | Qual |
| Barium     | 0.48              | 0.0020 | 0.5000         | 0                 | 95.9 | 85        | 115                             |        |             |      |
| Beryllium  | 0.52              | 0.0020 | 0.5000         | 0                 | 104  | 85        | 115                             |        |             |      |
| Cadmium    | 0.51              | 0.0020 | 0.5000         | 0                 | 102  | 85        | 115                             |        |             |      |
| Chromium   | 0.49              | 0.0060 | 0.5000         | 0                 | 97.1 | 85        | 115                             |        |             |      |
| Cobalt     | 0.47              | 0.0060 | 0.5000         | 0                 | 93.3 | 85        | 115                             |        |             |      |
| Iron       | 0.47              | 0.020  | 0.5000         | 0                 | 94.4 | 85        | 115                             |        |             |      |
| Manganese  | 0.47              | 0.0020 | 0.5000         | 0                 | 93.4 | 85        | 115                             |        |             |      |
| Nickel     | 0.46              | 0.010  | 0.5000         | 0                 | 92.2 | 85        | 115                             |        |             |      |
| Silver     | 0.10              | 0.0050 | 0.1000         | 0                 | 103  | 85        | 115                             |        |             |      |
| Vanadium   | 0.51              | 0.050  | 0.5000         | 0                 | 102  | 85        | 115                             |        |             |      |
| Zinc       | 0.48              | 0.010  | 0.5000         | 0                 | 95.3 | 85        | 115                             |        |             |      |

|            |                       |        |                |                   |      |           |                                 |        |             |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|---------------------------------|--------|-------------|------|
| Sample ID  | <b>1210692-027DMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA Method 200.7: Metals</b> |        |             |      |
| Client ID: | <b>EB101112</b>       |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6377</b>                     |        |             |      |
| Prep Date: | <b>10/18/2012</b>     |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183451</b>                   | Units: | <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                       | %RPD   | RPDLimit    | Qual |
| Barium     | 0.45                  | 0.0020 | 0.5000         | 0.001070          | 90.6 | 70        | 130                             |        |             |      |
| Beryllium  | 0.49                  | 0.0020 | 0.5000         | 0                 | 97.3 | 70        | 130                             |        |             |      |
| Cadmium    | 0.48                  | 0.0020 | 0.5000         | 0                 | 95.6 | 70        | 130                             |        |             |      |
| Chromium   | 0.46                  | 0.0060 | 0.5000         | 0                 | 91.5 | 70        | 130                             |        |             |      |
| Cobalt     | 0.43                  | 0.0060 | 0.5000         | 0                 | 86.4 | 70        | 130                             |        |             |      |
| Manganese  | 0.45                  | 0.0020 | 0.5000         | 0.001780          | 89.2 | 70        | 130                             |        |             |      |
| Nickel     | 0.42                  | 0.010  | 0.5000         | 0.001690          | 83.9 | 70        | 130                             |        |             |      |
| Silver     | 0.095                 | 0.0050 | 0.1000         | 0                 | 94.9 | 70        | 130                             |        |             |      |
| Vanadium   | 0.49                  | 0.050  | 0.5000         | 0                 | 98.2 | 70        | 130                             |        |             |      |
| Zinc       | 0.42                  | 0.010  | 0.5000         | 0                 | 83.3 | 70        | 130                             |        |             |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |        |                           |             |                                    |          |             |        |          |      |
|------------|-----------------|--------|---------------------------|-------------|------------------------------------|----------|-------------|--------|----------|------|
| Sample ID  | 1210692-027DMSD |        | SampType: MSD             |             | TestCode: EPA Method 200.7: Metals |          |             |        |          |      |
| Client ID: | EB101112        |        | Batch ID: 4388            |             | RunNo: 6377                        |          |             |        |          |      |
| Prep Date: | 10/18/2012      |        | Analysis Date: 10/19/2012 |             | SeqNo: 183452                      |          | Units: mg/L |        |          |      |
| Analyte    | Result          | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD   | RPDLimit | Qual |
| Barium     | 0.46            | 0.0020 | 0.5000                    | 0.001070    | 91.1                               | 70       | 130         | 0.538  | 20       |      |
| Beryllium  | 0.49            | 0.0020 | 0.5000                    | 0           | 97.1                               | 70       | 130         | 0.126  | 20       |      |
| Cadmium    | 0.48            | 0.0020 | 0.5000                    | 0           | 95.8                               | 70       | 130         | 0.190  | 20       |      |
| Chromium   | 0.46            | 0.0060 | 0.5000                    | 0           | 91.8                               | 70       | 130         | 0.347  | 20       |      |
| Cobalt     | 0.43            | 0.0060 | 0.5000                    | 0           | 86.8                               | 70       | 130         | 0.490  | 20       |      |
| Manganese  | 0.45            | 0.0020 | 0.5000                    | 0.001780    | 89.7                               | 70       | 130         | 0.617  | 20       |      |
| Nickel     | 0.42            | 0.010  | 0.5000                    | 0.001690    | 84.4                               | 70       | 130         | 0.521  | 20       |      |
| Silver     | 0.098           | 0.0050 | 0.1000                    | 0           | 98.2                               | 70       | 130         | 3.36   | 20       |      |
| Vanadium   | 0.49            | 0.050  | 0.5000                    | 0           | 98.2                               | 70       | 130         | 0.0244 | 20       |      |
| Zinc       | 0.42            | 0.010  | 0.5000                    | 0           | 83.9                               | 70       | 130         | 0.765  | 20       |      |

|            |                |       |                           |             |                                    |          |             |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210692-027DMS |       | SampType: MS              |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | EB101112       |       | Batch ID: 4388            |             | RunNo: 6431                        |          |             |      |          |      |
| Prep Date: | 10/18/2012     |       | Analysis Date: 10/23/2012 |             | SeqNo: 184811                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.60           | 0.020 | 0.5000                    | 0.1311      | 92.9                               | 70       | 130         |      |          |      |

|            |                 |       |           |                |            |          |           |                          |          |        |      |
|------------|-----------------|-------|-----------|----------------|------------|----------|-----------|--------------------------|----------|--------|------|
| Sample ID  | 1210692-027DMSD |       |           | SampType:      | MSD        |          | TestCode: | EPA Method 200.7: Metals |          |        |      |
| Client ID: | EB101112        |       |           | Batch ID:      | 4388       |          | RunNo:    | 6431                     |          |        |      |
| Prep Date: | 10/18/2012      |       |           | Analysis Date: | 10/23/2012 |          | SeqNo:    | 184812                   |          | Units: | mg/L |
| Analyte    | Result          | PQL   | SPK value | SPK Ref Val    | %REC       | LowLimit | HighLimit | %RPD                     | RPDLimit | Qual   |      |
| Iron       | 0.60            | 0.020 | 0.5000    | 0.1311         | 94.6       | 70       | 130       | 1.40                     | 20       |        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                   |        |                |                   |      |           |                          |      |                    |      |
|------------|-------------------|--------|----------------|-------------------|------|-----------|--------------------------|------|--------------------|------|
| Sample ID  | <b>MB-4388</b>    |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA 200.8: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b>        |        | Batch ID:      | <b>4388</b>       |      | RunNo:    | <b>6368</b>              |      |                    |      |
| Prep Date: | <b>10/18/2012</b> |        | Analysis Date: | <b>10/19/2012</b> |      | SeqNo:    | <b>183111</b>            |      | Units: <b>mg/L</b> |      |
| Analyte    | Result            | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit           | Qual |
| Antimony   | ND                | 0.0025 |                |                   |      |           |                          |      |                    |      |
| Arsenic    | ND                | 0.0025 |                |                   |      |           |                          |      |                    |      |
| Lead       | ND                | 0.0025 |                |                   |      |           |                          |      |                    |      |
| Selenium   | ND                | 0.0025 |                |                   |      |           |                          |      |                    |      |

|            |                       |        |                |                   |      |           |                          |      |                    |      |
|------------|-----------------------|--------|----------------|-------------------|------|-----------|--------------------------|------|--------------------|------|
| Sample ID  | <b>1209C98-001AMS</b> |        | SampType:      | <b>MS</b>         |      | TestCode: | <b>EPA 200.8: Metals</b> |      |                    |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |      |                    |      |
| Prep Date: |                       |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>186650</b>            |      | Units: <b>mg/L</b> |      |
| Analyte    | Result                | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit           | Qual |
| Arsenic    | 0.031                 | 0.0010 | 0.02500        | 0.005774          | 102  | 70        | 130                      |      |                    |      |

|            |             |        |                |                   |      |           |                          |      |                    |      |
|------------|-------------|--------|----------------|-------------------|------|-----------|--------------------------|------|--------------------|------|
| Sample ID  | <b>LCS</b>  |        | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA 200.8: Metals</b> |      |                    |      |
| Client ID: | <b>LCSW</b> |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |      |                    |      |
| Prep Date: |             |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>186664</b>            |      | Units: <b>mg/L</b> |      |
| Analyte    | Result      | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit           | Qual |
| Antimony   | 0.026       | 0.0010 | 0.02500        | 0                 | 103  | 85        | 115                      |      |                    |      |
| Arsenic    | 0.026       | 0.0010 | 0.02500        | 0                 | 104  | 85        | 115                      |      |                    |      |
| Lead       | 0.026       | 0.0010 | 0.02500        | 0                 | 105  | 85        | 115                      |      |                    |      |
| Selenium   | 0.026       | 0.0010 | 0.02500        | 0                 | 104  | 85        | 115                      |      |                    |      |

|            |             |        |                |                   |      |           |                          |      |                    |      |
|------------|-------------|--------|----------------|-------------------|------|-----------|--------------------------|------|--------------------|------|
| Sample ID  | <b>LCS</b>  |        | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA 200.8: Metals</b> |      |                    |      |
| Client ID: | <b>LCSW</b> |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |      |                    |      |
| Prep Date: |             |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>186665</b>            |      | Units: <b>mg/L</b> |      |
| Analyte    | Result      | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit           | Qual |
| Antimony   | 0.026       | 0.0010 | 0.02500        | 0                 | 104  | 85        | 115                      |      |                    |      |
| Arsenic    | 0.026       | 0.0010 | 0.02500        | 0                 | 105  | 85        | 115                      |      |                    |      |
| Lead       | 0.027       | 0.0010 | 0.02500        | 0                 | 106  | 85        | 115                      |      |                    |      |
| Selenium   | 0.026       | 0.0010 | 0.02500        | 0                 | 104  | 85        | 115                      |      |                    |      |

|            |            |        |                |                   |      |           |                          |      |                    |      |
|------------|------------|--------|----------------|-------------------|------|-----------|--------------------------|------|--------------------|------|
| Sample ID  | <b>MB</b>  |        | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA 200.8: Metals</b> |      |                    |      |
| Client ID: | <b>PBW</b> |        | Batch ID:      | <b>R6483</b>      |      | RunNo:    | <b>6483</b>              |      |                    |      |
| Prep Date: |            |        | Analysis Date: | <b>10/25/2012</b> |      | SeqNo:    | <b>186667</b>            |      | Units: <b>mg/L</b> |      |
| Analyte    | Result     | PQL    | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                | %RPD | RPDLimit           | Qual |
| Antimony   | ND         | 0.0010 |                |                   |      |           |                          |      |                    |      |
| Arsenic    | ND         | 0.0010 |                |                   |      |           |                          |      |                    |      |
| Lead       | ND         | 0.0010 |                |                   |      |           |                          |      |                    |      |
| Selenium   | ND         | 0.0010 |                |                   |      |           |                          |      |                    |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.1

| Sample ID <b>MB</b>   | SampType: <b>MBLK</b>            |        | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|-----------------------|----------------------------------|--------|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBW</b> | Batch ID: <b>R6483</b>           |        | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:            | Analysis Date: <b>10/25/2012</b> |        | SeqNo: <b>186668</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte               | Result                           | PQL    | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Antimony              | ND                               | 0.0010 |                                    |             |                    |          |           |      |          |      |
| Arsenic               | ND                               | 0.0010 |                                    |             |                    |          |           |      |          |      |
| Lead                  | ND                               | 0.0010 |                                    |             |                    |          |           |      |          |      |
| Selenium              | ND                               | 0.0010 |                                    |             |                    |          |           |      |          |      |

| Sample ID <b>1210516-002BMS</b> | SampType: <b>MS</b>              |        | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|---------------------------------|----------------------------------|--------|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6483</b>           |        | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/25/2012</b> |        | SeqNo: <b>187056</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                           | PQL    | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic                         | 0.026                            | 0.0010 | 0.02500                            | 0           | 102                | 70       | 130       |      |          |      |
| Lead                            | 0.029                            | 0.0010 | 0.02500                            | 0.002703    | 104                | 70       | 130       |      |          |      |
| Selenium                        | 0.026                            | 0.0010 | 0.02500                            | 0           | 102                | 70       | 130       |      |          |      |

| Sample ID <b>1210544-001CMS</b> | SampType: <b>MS</b>              |        | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|---------------------------------|----------------------------------|--------|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6483</b>           |        | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/25/2012</b> |        | SeqNo: <b>187059</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                           | PQL    | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Antimony                        | 0.025                            | 0.0010 | 0.02500                            | 0           | 98.2               | 70       | 130       |      |          |      |
| Arsenic                         | 0.027                            | 0.0010 | 0.02500                            | 0.001693    | 101                | 70       | 130       |      |          |      |
| Selenium                        | 0.026                            | 0.0010 | 0.02500                            | 0.001046    | 100                | 70       | 130       |      |          |      |

| Sample ID <b>1210724-001AMS</b> | SampType: <b>MS</b>              |        | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|---------------------------------|----------------------------------|--------|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6483</b>           |        | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/25/2012</b> |        | SeqNo: <b>187071</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                           | PQL    | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic                         | 0.048                            | 0.0010 | 0.02500                            | 0.02319     | 99.5               | 70       | 130       |      |          |      |

| Sample ID <b>1210724-010AMS</b> | SampType: <b>MS</b>              |        | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|---------------------------------|----------------------------------|--------|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6483</b>           |        | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/25/2012</b> |        | SeqNo: <b>187081</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                         | Result                           | PQL    | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic                         | 0.029                            | 0.0010 | 0.02500                            | 0.004033    | 101                | 70       | 130       |      |          |      |

| Sample ID <b>LCS</b>   | SampType: <b>LCS</b>             |     | TestCode: <b>EPA 200.8: Metals</b> |             |                    |          |           |      |          |      |
|------------------------|----------------------------------|-----|------------------------------------|-------------|--------------------|----------|-----------|------|----------|------|
| Client ID: <b>LCSW</b> | Batch ID: <b>R6483</b>           |     | RunNo: <b>6483</b>                 |             |                    |          |           |      |          |      |
| Prep Date:             | Analysis Date: <b>10/25/2012</b> |     | SeqNo: <b>187100</b>               |             | Units: <b>mg/L</b> |          |           |      |          |      |
| Analyte                | Result                           | PQL | SPK value                          | SPK Ref Val | %REC               | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |        |                           |             |      |                             |           |             |          |      |
|------------|--------|--------|---------------------------|-------------|------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             |      | TestCode: EPA 200.8: Metals |           |             |          |      |
| Client ID: | LCSW   |        | Batch ID: R6483           |             |      | RunNo: 6483                 |           |             |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             |      | SeqNo: 187100               |           | Units: mg/L |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Antimony   | 0.024  | 0.0010 | 0.02500                   | 0           | 96.9 | 85                          | 115       |             |          |      |
| Arsenic    | 0.025  | 0.0010 | 0.02500                   | 0           | 100  | 85                          | 115       |             |          |      |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 104  | 85                          | 115       |             |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 104  | 85                          | 115       |             |          |      |

|            |        |        |                           |             |      |                             |           |             |          |      |
|------------|--------|--------|---------------------------|-------------|------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             |      | TestCode: EPA 200.8: Metals |           |             |          |      |
| Client ID: | LCSW   |        | Batch ID: R6483           |             |      | RunNo: 6483                 |           |             |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             |      | SeqNo: 187101               |           | Units: mg/L |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Antimony   | 0.024  | 0.0010 | 0.02500                   | 0           | 96.2 | 85                          | 115       |             |          |      |
| Arsenic    | 0.025  | 0.0010 | 0.02500                   | 0           | 99.5 | 85                          | 115       |             |          |      |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 105  | 85                          | 115       |             |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 104  | 85                          | 115       |             |          |      |

|            |        |        |                           |             |      |                             |           |             |          |      |
|------------|--------|--------|---------------------------|-------------|------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | MB     |        | SampType: MBLK            |             |      | TestCode: EPA 200.8: Metals |           |             |          |      |
| Client ID: | PBW    |        | Batch ID: R6483           |             |      | RunNo: 6483                 |           |             |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             |      | SeqNo: 187102               |           | Units: mg/L |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Antimony   | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Arsenic    | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Lead       | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Selenium   | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |

|            |        |        |                           |             |      |                             |           |             |          |      |
|------------|--------|--------|---------------------------|-------------|------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | MB     |        | SampType: MBLK            |             |      | TestCode: EPA 200.8: Metals |           |             |          |      |
| Client ID: | PBW    |        | Batch ID: R6483           |             |      | RunNo: 6483                 |           |             |          |      |
| Prep Date: |        |        | Analysis Date: 10/25/2012 |             |      | SeqNo: 187103               |           | Units: mg/L |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Antimony   | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Arsenic    | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Lead       | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |
| Selenium   | ND     | 0.0010 |                           |             |      |                             |           |             |          |      |

|            |           |        |                           |             |      |                             |           |             |          |      |
|------------|-----------|--------|---------------------------|-------------|------|-----------------------------|-----------|-------------|----------|------|
| Sample ID  | MB-4738   |        | SampType: MBLK            |             |      | TestCode: EPA 200.8: Metals |           |             |          |      |
| Client ID: | PBW       |        | Batch ID: 4738            |             |      | RunNo: 6848                 |           |             |          |      |
| Prep Date: | 11/8/2012 |        | Analysis Date: 11/12/2012 |             |      | SeqNo: 198392               |           | Units: mg/L |          |      |
| Analyte    | Result    | PQL    | SPK value                 | SPK Ref Val | %REC | LowLimit                    | HighLimit | %RPD        | RPDLimit | Qual |
| Selenium   | ND        | 0.0025 |                           |             |      |                             |           |             |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4503    |         | SampType: MBLK            |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW        |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012 |         | Analysis Date: 10/24/2012 |             | SeqNo: 186274                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.00020 |                           |             |                                     |          |             |      |          |      |

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4503   |         | SampType: LCS             |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW       |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012 |         | Analysis Date: 10/24/2012 |             | SeqNo: 186276                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0048     | 0.00020 | 0.005000                  | 0           | 96.2                                | 80       | 120         |      |          |      |

|            |                |         |                           |             |                                     |          |             |      |          |      |
|------------|----------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210675-003BMS |         | SampType: ms              |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | BatchQC        |         | Batch ID: 4503            |             | RunNo: 6470                         |          |             |      |          |      |
| Prep Date: | 10/24/2012     |         | Analysis Date: 10/24/2012 |             | SeqNo: 186299                       |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0042         | 0.00020 | 0.005000                  | 0           | 83.0                                | 75       | 125         |      |          |      |

|            |                 |         |                |             |      |           |                           |      |          |      |  |
|------------|-----------------|---------|----------------|-------------|------|-----------|---------------------------|------|----------|------|--|
| Sample ID  | 1210675-003BMSD |         | SampType:      | msd         |      | TestCode: | EPA Method 245.1: Mercury |      |          |      |  |
| Client ID: | BatchQC         |         | Batch ID:      | 4503        |      | RunNo:    | 6470                      |      |          |      |  |
| Prep Date: | 10/24/2012      |         | Analysis Date: | 10/24/2012  |      | SeqNo:    | 186300                    |      | Units:   | mg/L |  |
| Analyte    | Result          | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                 | %RPD | RPDLimit | Qual |  |
| Mercury    | 0.0040          | 0.00020 | 0.005000       | 0           | 80.1 | 75        | 125                       | 3.62 | 20       |      |  |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6252           |           |             | RunNo: 6252                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/15/2012 |           |             | SeqNo: 180156                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | ND     | 0.10                      |           |             |                                    |          |             |      |          |      |
| Chloride   | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |
| Sulfate    | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |

|            |        |      |                           |             |                                    |          |             |      |          |      |
|------------|--------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |      | SampType: LCS             |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | LCSW   |      | Batch ID: R6252           |             | RunNo: 6252                        |          |             |      |          |      |
| Prep Date: |        |      | Analysis Date: 10/15/2012 |             | SeqNo: 180157                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.45   | 0.10 | 0.5000                    | 0           | 90.5                               | 90       | 110         |      |          |      |
| Chloride   | 4.7    | 0.50 | 5.000                     | 0           | 94.6                               | 90       | 110         |      |          |      |
| Sulfate    | 9.8    | 0.50 | 10.00                     | 0           | 97.6                               | 90       | 110         |      |          |      |

|            |                |      |                           |             |                                    |          |             |      |          |      |
|------------|----------------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210692-027CMS |      | SampType: MS              |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | EB101112       |      | Batch ID: R6252           |             | RunNo: 6252                        |          |             |      |          |      |
| Prep Date: |                |      | Analysis Date: 10/15/2012 |             | SeqNo: 180161                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.45           | 0.10 | 0.5000                    | 0           | 89.6                               | 76.6     | 110         |      |          |      |
| Chloride   | 4.7            | 0.50 | 5.000                     | 0.1934      | 90.6                               | 87.8     | 111         |      |          |      |
| Sulfate    | 9.6            | 0.50 | 10.00                     | 0           | 96.4                               | 84.6     | 122         |      |          |      |

|            |                 |      |                           |             |                                    |          |             |       |          |      |
|------------|-----------------|------|---------------------------|-------------|------------------------------------|----------|-------------|-------|----------|------|
| Sample ID  | 1210692-027CMSD |      | SampType: MSD             |             | TestCode: EPA Method 300.0: Anions |          |             |       |          |      |
| Client ID: | EB101112        |      | Batch ID: R6252           |             | RunNo: 6252                        |          |             |       |          |      |
| Prep Date: |                 |      | Analysis Date: 10/15/2012 |             | SeqNo: 180162                      |          | Units: mg/L |       |          |      |
| Analyte    | Result          | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Fluoride   | 0.46            | 0.10 | 0.5000                    | 0           | 91.6                               | 76.6     | 110         | 2.19  | 20       |      |
| Chloride   | 4.7             | 0.50 | 5.000                     | 0.1934      | 90.5                               | 87.8     | 111         | 0.131 | 20       |      |
| Sulfate    | 9.6             | 0.50 | 10.00                     | 0           | 95.7                               | 84.6     | 122         | 0.694 | 20       |      |

|            |                |      |                           |             |                                    |          |             |      |          |      |
|------------|----------------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210694-001AMS |      | SampType: MS              |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | BatchQC        |      | Batch ID: R6252           |             | RunNo: 6252                        |          |             |      |          |      |
| Prep Date: |                |      | Analysis Date: 10/15/2012 |             | SeqNo: 180170                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 1.2            | 0.10 | 0.5000                    | 0.7877      | 89.9                               | 76.6     | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |      |           |                |            |          |           |                          |          |        |      |
|------------|-----------------|------|-----------|----------------|------------|----------|-----------|--------------------------|----------|--------|------|
| Sample ID  | 1210694-001AMSD |      |           | SampType:      | MSD        |          | TestCode: | EPA Method 300.0: Anions |          |        |      |
| Client ID: | BatchQC         |      |           | Batch ID:      | R6252      |          | RunNo:    | 6252                     |          |        |      |
| Prep Date: |                 |      |           | Analysis Date: | 10/15/2012 |          | SeqNo:    | 180171                   |          | Units: | mg/L |
| Analyte    | Result          | PQL  | SPK value | SPK Ref Val    | %REC       | LowLimit | HighLimit | %RPD                     | RPDLimit | Qual   |      |
| Fluoride   | 1.2             | 0.10 | 0.5000    | 0.7877         | 92.4       | 76.6     | 110       | 0.997                    | 20       |        |      |

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6330           |           |             | RunNo: 6330                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/17/2012 |           |             | SeqNo: 182236                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | ND     | 0.10                      |           |             |                                    |          |             |      |          |      |
| Chloride   | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |
| Sulfate    | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    | SampType: LCS             |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | LCSW   | Batch ID: R6330           |           |             | RunNo: 6330                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/17/2012 |           |             | SeqNo: 182237                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.48   | 0.10                      | 0.5000    | 0           | 96.6                               | 90       | 110         |      |          |      |
| Chloride   | 4.8    | 0.50                      | 5.000     | 0           | 97.0                               | 90       | 110         |      |          |      |
| Sulfate    | 9.6    | 0.50                      | 10.00     | 0           | 95.9                               | 90       | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4297    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4297            |           |             | RunNo: 6226                                       |          |              |      |          |      |
| Prep Date:                     | 10/15/2012 | Analysis Date: 10/15/2012 |           |             | SeqNo: 179526                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 9.1        |                           | 10.00     |             | 90.9                                              | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4297   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4297            |             | RunNo: 6226                                       |          |              |      |          |      |
| Prep Date:                  | 10/15/2012 |     | Analysis Date: 10/15/2012 |             | SeqNo: 179527                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 49         | 10  | 50.00                     | 0           | 97.3                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.5        |     | 5.000                     |             | 89.5                                              | 77.6     | 140          |      |          |      |

|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4305    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4305            |           |             | RunNo: 6260                                       |          |              |      |          |      |
| Prep Date:                     | 10/15/2012 | Analysis Date: 10/16/2012 |           |             | SeqNo: 180406                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 9.0        |                           | 10.00     |             | 89.9                                              | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4305   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4305            |             | RunNo: 6260                                       |          |              |      |          |      |
| Prep Date:                  | 10/15/2012 |     | Analysis Date: 10/16/2012 |             | SeqNo: 180407                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 36         | 10  | 50.00                     | 0           | 71.6                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.0        |     | 5.000                     |             | 80.0                                              | 77.6     | 140          |      |          |      |

|                             |                    |                           |           |             |                                                   |          |              |      |          |      |
|-----------------------------|--------------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210692-001CMS     | SampType: MS              |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 1-20 (0-0.5') | Batch ID: 4305            |           |             | RunNo: 6264                                       |          |              |      |          |      |
| Prep Date:                  | 10/15/2012         | Analysis Date: 10/16/2012 |           |             | SeqNo: 181188                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result             | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 30                 | 9.6                       | 48.17     | 0           | 62.7                                              | 57.2     | 146          |      |          |      |
| Surr: DNOP                  | 3.7                |                           | 4.817     |             | 77.1                                              | 77.6     | 140          |      |          | S    |

|            |                    |     |                           |             |                                                   |          |              |      |          |      |
|------------|--------------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210692-001CMSD    |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID: | SWMU 1-20 (0-0.5') |     | Batch ID: 4305            |             | RunNo: 6264                                       |          |              |      |          |      |
| Prep Date: | 10/15/2012         |     | Analysis Date: 10/16/2012 |             | SeqNo: 181190                                     |          | Units: mg/Kg |      |          |      |
| Analyte    | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |

### Qualifiers:

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B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                    |                |            |             |                                         |          |           |      |          |      |
|-----------------------------|--------------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 1210692-001CMSD    | SampType:      | MSD        | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID:                  | SWMU 1-20 (0-0.5') | Batch ID:      | 4305       | RunNo:      | 6264                                    |          |           |      |          |      |
| Prep Date:                  | 10/15/2012         | Analysis Date: | 10/16/2012 | SeqNo:      | 181190                                  | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result             | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 29                 | 9.8            | 48.92      | 0           | 59.5                                    | 57.2     | 146       | 3.70 | 24.5     |      |
| Surr: DNOP                  | 4.0                |                | 4.892      |             | 82.2                                    | 77.6     | 140       | 0    | 0        |      |

|                             |                    |                |            |             |                                         |          |           |      |          |      |
|-----------------------------|--------------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 1210692-022CMS     | SampType:      | MS         | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID:                  | SWMU 1-13 (1.5-2') | Batch ID:      | 4297       | RunNo:      | 6264                                    |          |           |      |          |      |
| Prep Date:                  | 10/15/2012         | Analysis Date: | 10/16/2012 | SeqNo:      | 181197                                  | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result             | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 37                 | 9.8            | 48.83      | 15.64       | 42.9                                    | 57.2     | 146       |      |          | S    |
| Surr: DNOP                  | 3.9                |                | 4.883      |             | 80.4                                    | 77.6     | 140       |      |          |      |

|                             |                    |                |            |             |                                         |          |           |      |          |      |
|-----------------------------|--------------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 1210692-022CMSD    | SampType:      | MSD        | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID:                  | SWMU 1-13 (1.5-2') | Batch ID:      | 4297       | RunNo:      | 6264                                    |          |           |      |          |      |
| Prep Date:                  | 10/15/2012         | Analysis Date: | 10/16/2012 | SeqNo:      | 181199                                  | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result             | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 44                 | 9.8            | 48.83      | 15.64       | 58.1                                    | 57.2     | 146       | 18.4 | 24.5     |      |
| Surr: DNOP                  | 4.0                |                | 4.883      |             | 82.0                                    | 77.6     | 140       | 0    | 0        |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |     |                           |             |                                          |          |             |      |          |      |
|--------------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-4332    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW        |     | Batch ID: 4332            |             | RunNo: 6264                              |          |             |      |          |      |
| Prep Date:                     | 10/16/2012 |     | Analysis Date: 10/16/2012 |             | SeqNo: 181203                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 1.0 |                           |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 5.0 |                           |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 1.1        |     | 1.000                     |             | 106                                      | 79.5     | 166         |      |          |      |

|                             |            |     |                           |             |                                          |          |             |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-4332   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW       |     | Batch ID: 4332            |             | RunNo: 6264                              |          |             |      |          |      |
| Prep Date:                  | 10/16/2012 |     | Analysis Date: 10/16/2012 |             | SeqNo: 181204                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.7        | 1.0 | 5.000                     | 0           | 74.3                                     | 74       | 157         |      |          |      |
| Surr: DNOP                  | 0.47       |     | 0.5000                    |             | 93.6                                     | 79.5     | 166         |      |          |      |

|                             |            |                           |           |             |                                          |          |             |      |          |      |
|-----------------------------|------------|---------------------------|-----------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCSD-4332  | SampType: LCSD            |           |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSS02     | Batch ID: 4332            |           |             | RunNo: 6264                              |          |             |      |          |      |
| Prep Date:                  | 10/16/2012 | Analysis Date: 10/16/2012 |           |             | SeqNo: 181205                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.9        | 1.0                       | 5.000     | 0           | 78.8                                     | 74       | 157         | 8.99 | 23       |      |
| Surr: DNOP                  | 0.49       |                           | 0.5000    |             | 97.2                                     | 79.5     | 166         | 0    | 0        |      |

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R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4362    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        |     | Batch ID: 4362            |             | RunNo: 6387                                |          |              |      |          |      |
| Prep Date:                    | 10/17/2012 |     | Analysis Date: 10/21/2012 |             | SeqNo: 183666                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 910        |     | 1000                      |             | 90.5                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4362   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4362            |             | RunNo: 6387                                |          |              |      |          |      |
| Prep Date:                    | 10/17/2012 |     | Analysis Date: 10/21/2012 |             | SeqNo: 183667                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24         | 5.0 | 25.00                     | 0           | 97.6                                       | 74       | 117          |      |          |      |
| Surr: BFB                     | 970        |     | 1000                      |             | 97.3                                       | 84       | 116          |      |          |      |

|                               |                |                           |           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|---------------------------|-----------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210803-006AMS | SampType: MS              |           |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        | Batch ID: 4362            |           |             | RunNo: 6387                                |          |              |      |          |      |
| Prep Date:                    | 10/17/2012     | Analysis Date: 10/21/2012 |           |             | SeqNo: 183670                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL                       | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 32             | 23                        | 23.26     | 0           | 136                                        | 70       | 130          |      |          | S    |
| Surr: BFB                     | 4200           |                           | 4651      |             | 90.1                                       | 84       | 116          |      |          |      |

|                               |                 |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210803-006AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: 4362            |             | RunNo: 6387                                |          |              |      |          |      |
| Prep Date:                    | 10/17/2012      |     | Analysis Date: 10/21/2012 |             | SeqNo: 183671                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 33              | 25  | 24.56                     | 0           | 133                                        | 70       | 130          | 2.92 | 22.1     | S    |
| Surr: BFB                     | 4400            |     | 4912                      |             | 90.0                                       | 84       | 116          | 0    | 0        |      |

|            |            |                           |           |             |                                            |          |             |      |          |      |
|------------|------------|---------------------------|-----------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4403    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Gasoline Range |          |             |      |          |      |
| Client ID: | PBS        | Batch ID: 4403            |           |             | RunNo: 6387                                |          |             |      |          |      |
| Prep Date: | 10/18/2012 | Analysis Date: 10/21/2012 |           |             | SeqNo: 183713                              |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: BFB  | 910        |                           | 1000      |             | 91.0                                       | 84       | 116         |      |          |      |

|            |            |     |                           |             |                                            |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4403   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4403            |             | RunNo: 6387                                |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/21/2012 |             | SeqNo: 183714                              |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: BFB  | 940        |     | 1000                      |             | 93.8                                       | 84       | 116         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                                  |     |           |                                              |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>b2</b>         | SampType: <b>MBLK</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
| Client ID: <b>PBS</b>       | Batch ID: <b>R6394</b>           |     |           | RunNo: <b>6394</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184052</b>                         |      | Units: <b>%REC</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4 | 0.44                             |     | 0.5000    |                                              | 87.9 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 0.50                             |     | 0.5000    |                                              | 99.2 | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 0.45                             |     | 0.5000    |                                              | 90.8 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 0.47                             |     | 0.5000    |                                              | 94.3 | 70                 | 130       |      |          |      |

|                             |                                  |     |           |                                              |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>100ng lcsc</b> | SampType: <b>LCS</b>             |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSS</b>      | Batch ID: <b>R6394</b>           |     |           | RunNo: <b>6394</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184056</b>                         |      | Units: <b>%REC</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4 | 0.45                             |     | 0.5000    |                                              | 90.9 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 0.49                             |     | 0.5000    |                                              | 98.6 | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 0.45                             |     | 0.5000    |                                              | 90.1 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 0.46                             |     | 0.5000    |                                              | 91.1 | 70                 | 130       |      |          |      |

|                                 |                                  |     |           |                                              |      |                    |           |      |          |      |
|---------------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210582-003bms</b> | SampType: <b>MS</b>              |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6394</b>           |     |           | RunNo: <b>6394</b>                           |      |                    |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184057</b>                         |      | Units: <b>%REC</b> |           |      |          |      |
| Analyte                         | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4     | 2.7                              |     | 2.820     |                                              | 95.2 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene      | 2.1                              |     | 2.820     |                                              | 73.3 | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane      | 2.7                              |     | 2.820     |                                              | 95.5 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8                | 2.7                              |     | 2.820     |                                              | 95.6 | 70                 | 130       |      |          |      |

|                                  |                                  |     |           |                                              |      |                    |           |      |          |      |
|----------------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210582-003bmsd</b> | SampType: <b>MSD</b>             |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>        | Batch ID: <b>R6394</b>           |     |           | RunNo: <b>6394</b>                           |      |                    |           |      |          |      |
| Prep Date:                       | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184058</b>                         |      | Units: <b>%REC</b> |           |      |          |      |
| Analyte                          | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4      | 2.8                              |     | 2.820     |                                              | 98.9 | 70                 | 130       | 0    | 0        |      |
| Surr: 4-Bromofluorobenzene       | 2.0                              |     | 2.820     |                                              | 69.9 | 70                 | 130       | 0    | 0        | S    |
| Surr: Dibromofluoromethane       | 2.7                              |     | 2.820     |                                              | 95.4 | 70                 | 130       | 0    | 0        |      |
| Surr: Toluene-d8                 | 2.6                              |     | 2.820     |                                              | 93.2 | 70                 | 130       | 0    | 0        |      |

|                              |                                  |     |           |                                              |      |                    |           |      |          |      |
|------------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>mb-4362</b>     | SampType: <b>MBLK</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
| Client ID: <b>PBS</b>        | Batch ID: <b>4362</b>            |     |           | RunNo: <b>6485</b>                           |      |                    |           |      |          |      |
| Prep Date: <b>10/17/2012</b> | Analysis Date: <b>10/24/2012</b> |     |           | SeqNo: <b>186696</b>                         |      | Units: <b>%REC</b> |           |      |          |      |
| Analyte                      | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4  | 0.46                             |     | 0.5000    |                                              | 92.3 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene   | 0.46                             |     | 0.5000    |                                              | 92.1 | 70                 | 130       |      |          |      |

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B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |     |                                  |             |                                              |          |                    |      |          |      |
|----------------------------|-------------------|-----|----------------------------------|-------------|----------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                  | <b>mb-4362</b>    |     | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8260B: VOLATILES</b> |          |                    |      |          |      |
| Client ID:                 | <b>PBS</b>        |     | Batch ID: <b>4362</b>            |             | RunNo: <b>6485</b>                           |          |                    |      |          |      |
| Prep Date:                 | <b>10/17/2012</b> |     | Analysis Date: <b>10/24/2012</b> |             | SeqNo: <b>186696</b>                         |          | Units: <b>%REC</b> |      |          |      |
| Analyte                    | Result            | PQL | SPK value                        | SPK Ref Val | %REC                                         | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 0.46              |     | 0.5000                           |             | 92.5                                         | 70       | 130                |      |          |      |
| Surr: Toluene-d8           | 0.49              |     | 0.5000                           |             | 98.5                                         | 70       | 130                |      |          |      |

|                             |                   |     |                                  |             |                                              |          |                    |      |          |      |
|-----------------------------|-------------------|-----|----------------------------------|-------------|----------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>lcs-4362</b>   |     | SampType: <b>LCS</b>             |             | TestCode: <b>EPA Method 8260B: VOLATILES</b> |          |                    |      |          |      |
| Client ID:                  | <b>LCSS</b>       |     | Batch ID: <b>4362</b>            |             | RunNo: <b>6485</b>                           |          |                    |      |          |      |
| Prep Date:                  | <b>10/17/2012</b> |     | Analysis Date: <b>10/24/2012</b> |             | SeqNo: <b>186792</b>                         |          | Units: <b>%REC</b> |      |          |      |
| Analyte                     | Result            | PQL | SPK value                        | SPK Ref Val | %REC                                         | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Surr: 1,2-Dichloroethane-d4 | 0.46              |     | 0.5000                           |             | 92.4                                         | 70       | 130                |      |          |      |
| Surr: 4-Bromofluorobenzene  | 0.46              |     | 0.5000                           |             | 92.7                                         | 70       | 130                |      |          |      |
| Surr: Dibromofluoromethane  | 0.47              |     | 0.5000                           |             | 93.1                                         | 70       | 130                |      |          |      |
| Surr: Toluene-d8            | 0.47              |     | 0.5000                           |             | 94.6                                         | 70       | 130                |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4301    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4301            |             | RunNo: 6259                               |          |              |      |          |      |
| Prep Date:                     | 10/15/2012 |         | Analysis Date: 10/15/2012 |             | SeqNo: 180381                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |         |                                  |             |      |                                                  |           |                     |          |      |
|-----------------------------|-------------------|---------|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID                   | <b>mb-4301</b>    |         | SampType: <b>MBLK</b>            |             |      | TestCode: <b>Method 8260B/5035LOW: VOLATILES</b> |           |                     |          |      |
| Client ID:                  | <b>PBS</b>        |         | Batch ID: <b>4301</b>            |             |      | RunNo: <b>6259</b>                               |           |                     |          |      |
| Prep Date:                  | <b>10/15/2012</b> |         | Analysis Date: <b>10/15/2012</b> |             |      | SeqNo: <b>180381</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte                     | Result            | PQL     | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |
| Hexachlorobutadiene         | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Isopropylbenzene            | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 4-Isopropyltoluene          | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Methylene chloride          | ND                | 0.00300 |                                  |             |      |                                                  |           |                     |          |      |
| n-Butylbenzene              | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Hexanone                  | ND                | 0.0100  |                                  |             |      |                                                  |           |                     |          |      |
| n-Propylbenzene             | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| sec-Butylbenzene            | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Styrene                     | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 4-Methyl-2-pentanone        | ND                | 0.0100  |                                  |             |      |                                                  |           |                     |          |      |
| tert-Butylbenzene           | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Tetrachloroethene (PCE)     | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| trans-1,2-DCE               | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| trans-1,3-Dichloropropene   | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,2,3-Trichlorobenzene      | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,2,4-Trichlorobenzene      | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,1,1-Trichloroethane       | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,1,2-Trichloroethane       | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Trichloroethene (TCE)       | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Trichlorofluoromethane      | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| 1,2,3-Trichloropropane      | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Vinyl chloride              | ND                | 0.00100 |                                  |             |      |                                                  |           |                     |          |      |
| Surr: 1,2-Dichloroethane-d4 | 43.6              |         | 50.00                            |             | 87.1 | 70                                               | 130       |                     |          |      |
| Surr: 4-Bromofluorobenzene  | 46.6              |         | 50.00                            |             | 93.1 | 70                                               | 130       |                     |          |      |
| Surr: Dibromofluoromethane  | 49.1              |         | 50.00                            |             | 98.2 | 70                                               | 130       |                     |          |      |
| Surr: Toluene-d8            | 43.1              |         | 50.00                            |             | 86.3 | 70                                               | 130       |                     |          |      |

|                             |                   |      |                                  |             |      |                                                  |           |                     |          |      |
|-----------------------------|-------------------|------|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID                   | <b>lcs-4301</b>   |      | SampType: <b>LCS</b>             |             |      | TestCode: <b>Method 8260B/5035LOW: VOLATILES</b> |           |                     |          |      |
| Client ID:                  | <b>LCSS</b>       |      | Batch ID: <b>4301</b>            |             |      | RunNo: <b>6259</b>                               |           |                     |          |      |
| Prep Date:                  | <b>10/15/2012</b> |      | Analysis Date: <b>10/15/2012</b> |             |      | SeqNo: <b>180383</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte                     | Result            | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |
| Benzene                     | 8.88              | 1.00 | 10.00                            | 0           | 88.8 | 60                                               | 140       |                     |          |      |
| Toluene                     | 8.84              | 1.00 | 10.00                            | 0           | 88.4 | 60                                               | 140       |                     |          |      |
| Chlorobenzene               | 9.69              | 1.00 | 10.00                            | 0           | 96.9 | 60                                               | 140       |                     |          |      |
| 1,1-Dichloroethene          | 11.2              | 1.00 | 10.00                            | 0           | 112  | 60                                               | 140       |                     |          |      |
| Trichloroethene (TCE)       | 9.94              | 1.00 | 10.00                            | 0           | 99.4 | 60                                               | 140       |                     |          |      |
| Surr: 1,2-Dichloroethane-d4 | 44.2              |      | 50.00                            |             | 88.3 | 70                                               | 130       |                     |          |      |
| Surr: 4-Bromofluorobenzene  | 47.2              |      | 50.00                            |             | 94.3 | 70                                               | 130       |                     |          |      |

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# QC SUMMARY REPORT

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WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | lcs-4301   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4301            |             | RunNo: 6259                               |          |              |      |          |      |
| Prep Date:                 | 10/15/2012 |     | Analysis Date: 10/15/2012 |             | SeqNo: 180383                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 51.4       |     | 50.00                     |             | 103                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 44.0       |     | 50.00                     |             | 87.9                                      | 70       | 130          |      |          |      |

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4333    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4333            |             | RunNo: 6282                               |          |              |      |          |      |
| Prep Date:                     | 10/16/2012 |         | Analysis Date: 10/16/2012 |             | SeqNo: 181101                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |      |                                           |           |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|------|----------|------|
| Sample ID                   | mb-4333    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4333            |             |      | RunNo: 6282                               |           |      |          |      |
| Prep Date:                  | 10/16/2012 |         | Analysis Date: 10/16/2012 |             |      | SeqNo: 181101 Units: mg/Kg                |           |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD | RPDLimit | Qual |
| 1,4-Dichlorobenzene         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Dichlorodifluoromethane     | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1-Dichloroethane          | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1-Dichloroethene          | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,3-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 2,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1-Dichloropropene         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |      |                                           |           |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |      |                                           |           |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |      |                                           |           |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |      |                                           |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 45.3       |         | 50.00                     |             | 90.7 | 70                                        | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 46.7       |         | 50.00                     |             | 93.4 | 70                                        | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 39.5       |         | 50.00                     |             | 79.1 | 70                                        | 130       |      |          |      |
| Surr: Toluene-d8            | 50.6       |         | 50.00                     |             | 101  | 70                                        | 130       |      |          |      |

### Qualifiers:

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P Sample pH greater than 2

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | Ics-4333   |      | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4333            |             |      | RunNo: 6282                               |           |              |          |      |
| Prep Date:                  | 10/16/2012 |      | Analysis Date: 10/16/2012 |             |      | SeqNo: 181103                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                     | 13.0       | 1.00 | 12.50                     | 0           | 104  | 60                                        | 140       |              |          |      |
| Toluene                     | 10.5       | 1.00 | 12.50                     | 0           | 83.7 | 60                                        | 140       |              |          |      |
| Chlorobenzene               | 11.5       | 1.00 | 12.50                     | 0           | 92.3 | 60                                        | 140       |              |          |      |
| 1,1-Dichloroethene          | 14.0       | 1.00 | 12.50                     | 0           | 112  | 60                                        | 140       |              |          |      |
| Trichloroethene (TCE)       | 18.1       | 1.00 | 12.50                     | 0           | 145  | 60                                        | 140       |              |          | S    |
| Surr: 1,2-Dichloroethane-d4 | 44.4       |      | 50.00                     |             | 88.8 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 47.2       |      | 50.00                     |             | 94.4 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 39.3       |      | 50.00                     |             | 78.6 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 43.1       |      | 50.00                     |             | 86.1 | 70                                        | 130       |              |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |        |                           |           |             |                                       |             |           |      |          |      |
|--------------------------------|--------|---------------------------|-----------|-------------|---------------------------------------|-------------|-----------|------|----------|------|
| Sample ID                      | 5ml rb | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |             |           |      |          |      |
| Client ID:                     | PBW    | Batch ID: R6255           |           |             | RunNo: 6255                           |             |           |      |          |      |
| Prep Date:                     |        | Analysis Date: 10/15/2012 |           |             | SeqNo: 180303                         | Units: µg/L |           |      |          |      |
| Analyte                        | Result | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Toluene                        | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Ethylbenzene                   | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Naphthalene                    | ND     | 2.0                       |           |             |                                       |             |           |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                       |           |             |                                       |             |           |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                       |           |             |                                       |             |           |      |          |      |
| Acetone                        | ND     | 10                        |           |             |                                       |             |           |      |          |      |
| Bromobenzene                   | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Bromodichloromethane           | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Bromoform                      | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Bromomethane                   | ND     | 3.0                       |           |             |                                       |             |           |      |          |      |
| 2-Butanone                     | ND     | 10                        |           |             |                                       |             |           |      |          |      |
| Carbon disulfide               | ND     | 10                        |           |             |                                       |             |           |      |          |      |
| Carbon tetrachloride           | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Chlorobenzene                  | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Chloroethane                   | ND     | 2.0                       |           |             |                                       |             |           |      |          |      |
| Chloroform                     | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Chloromethane                  | ND     | 3.0                       |           |             |                                       |             |           |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0                       |           |             |                                       |             |           |      |          |      |
| Dibromochloromethane           | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Dibromomethane                 | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Dichlorodifluoromethane        | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloroethane             | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloroethene             | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dichloropropane            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,3-Dichloropropane            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| 2,2-Dichloropropane            | ND     | 2.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloropropene            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |
| Hexachlorobutadiene            | ND     | 1.0                       |           |             |                                       |             |           |      |          |      |

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.1

| Sample ID <b>5ml rb</b>     | SampType: <b>MBLK</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R6255</b>           |     |           | RunNo: <b>6255</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/15/2012</b> |     |           | SeqNo: <b>180303</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| 2-Hexanone                  | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Isopropylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Isopropyltoluene          | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Methyl-2-pentanone        | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Methylene chloride          | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Butylbenzene              | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Propylbenzene             | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| sec-Butylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Styrene                     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| tert-Butylbenzene           | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,2-DCE               | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,3-Dichloropropene   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichloroethene (TCE)       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichlorofluoromethane      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichloropropane      | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Vinyl chloride              | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Xylenes, Total              | ND                               | 1.5 |           |                                              |      |                    |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.2                              |     | 10.00     |                                              | 92.5 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10                               |     | 10.00     |                                              | 101  | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 9.2                              |     | 10.00     |                                              | 92.1 | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 9.9                              |     | 10.00     |                                              | 99.3 | 70                 | 130       |      |          |      |

| Sample ID <b>100ng lcs</b>  | SampType: <b>LCS</b>             |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>R6255</b>           |     |           | RunNo: <b>6255</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/15/2012</b> |     |           | SeqNo: <b>180305</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | 22                               | 1.0 | 20.00     | 0                                            | 109  | 70                 | 130       |      |          |      |
| Toluene                     | 21                               | 1.0 | 20.00     | 0                                            | 105  | 80                 | 120       |      |          |      |
| Chlorobenzene               | 21                               | 1.0 | 20.00     | 0                                            | 107  | 70                 | 130       |      |          |      |
| 1,1-Dichloroethene          | 18                               | 1.0 | 20.00     | 0                                            | 92.3 | 73.7               | 122       |      |          |      |
| Trichloroethene (TCE)       | 19                               | 1.0 | 20.00     | 0                                            | 92.6 | 70                 | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.3                              |     | 10.00     |                                              | 93.2 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.8                              |     | 10.00     |                                              | 97.7 | 70                 | 130       |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |           |                           |           |             |                                       |          |             |      |          |      |
|----------------------------|-----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | 100ng lcs | SampType: LCS             |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                 | LCSW      | Batch ID: R6255           |           |             | RunNo: 6255                           |          |             |      |          |      |
| Prep Date:                 |           | Analysis Date: 10/15/2012 |           |             | SeqNo: 180305                         |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 9.0       |                           | 10.00     |             | 90.3                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8           | 9.4       |                           | 10.00     |             | 93.9                                  | 70       | 130         |      |          |      |

|                                |          |                           |           |             |                                       |          |             |      |          |      |
|--------------------------------|----------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | 5ml rb-b | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                     | PBW      | Batch ID: R6340           |           |             | RunNo: 6340                           |          |             |      |          |      |
| Prep Date:                     |          | Analysis Date: 10/17/2012 |           |             | SeqNo: 182455                         |          | Units: µg/L |      |          |      |
| Analyte                        | Result   | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Toluene                        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Naphthalene                    | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| 1-Methylnaphthalene            | ND       | 4.0                       |           |             |                                       |          |             |      |          |      |
| 2-Methylnaphthalene            | ND       | 4.0                       |           |             |                                       |          |             |      |          |      |
| Acetone                        | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Bromobenzene                   | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromodichloromethane           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromoform                      | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromomethane                   | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Butanone                     | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon disulfide               | ND       | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chlorobenzene                  | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloroethane                   | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Chloroform                     | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloromethane                  | ND       | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Chlorotoluene                | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 4-Chlorotoluene                | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,2-DCE                    | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,3-Dichloropropene        | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND       | 2.0                       |           |             |                                       |          |             |      |          |      |
| Dibromochloromethane           | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| Dibromomethane                 | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,4-Dichlorobenzene            | ND       | 1.0                       |           |             |                                       |          |             |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |          |                           |           |             |                                       |             |           |      |          |      |
|-----------------------------|----------|---------------------------|-----------|-------------|---------------------------------------|-------------|-----------|------|----------|------|
| Sample ID                   | 5ml rb-b | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |             |           |      |          |      |
| Client ID:                  | PBW      | Batch ID: R6340           |           |             | RunNo: 6340                           |             |           |      |          |      |
| Prep Date:                  |          | Analysis Date: 10/17/2012 |           |             | SeqNo: 182455                         | Units: µg/L |           |      |          |      |
| Analyte                     | Result   | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Dichlorodifluoromethane     | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloroethane          | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloroethene          | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2-Dichloropropane         | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,3-Dichloropropane         | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 2,2-Dichloropropane         | ND       | 2.0                       |           |             |                                       |             |           |      |          |      |
| 1,1-Dichloropropene         | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| Hexachlorobutadiene         | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 2-Hexanone                  | ND       | 10                        |           |             |                                       |             |           |      |          |      |
| Isopropylbenzene            | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 4-Isopropyltoluene          | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 4-Methyl-2-pentanone        | ND       | 10                        |           |             |                                       |             |           |      |          |      |
| Methylene Chloride          | ND       | 3.0                       |           |             |                                       |             |           |      |          |      |
| n-Butylbenzene              | ND       | 3.0                       |           |             |                                       |             |           |      |          |      |
| n-Propylbenzene             | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| sec-Butylbenzene            | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| Styrene                     | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| tert-Butylbenzene           | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND       | 2.0                       |           |             |                                       |             |           |      |          |      |
| Tetrachloroethene (PCE)     | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| trans-1,2-DCE               | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| trans-1,3-Dichloropropene   | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1,1-Trichloroethane       | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,1,2-Trichloroethane       | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| Trichloroethene (TCE)       | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| Trichlorofluoromethane      | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| 1,2,3-Trichloropropane      | ND       | 2.0                       |           |             |                                       |             |           |      |          |      |
| Vinyl chloride              | ND       | 1.0                       |           |             |                                       |             |           |      |          |      |
| Xylenes, Total              | ND       | 1.5                       |           |             |                                       |             |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 8.5      |                           | 10.00     |             | 84.6                                  | 70          | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10       |                           | 10.00     |             | 102                                   | 70          | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 8.8      |                           | 10.00     |             | 87.8                                  | 70          | 130       |      |          |      |
| Surr: Toluene-d8            | 9.7      |                           | 10.00     |             | 97.3                                  | 70          | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |           |     |                |             |      |           |                             |      |             |      |
|-----------------------------|-----------|-----|----------------|-------------|------|-----------|-----------------------------|------|-------------|------|
| Sample ID                   | 100ng lcs |     | SampType:      | LCS         |      | TestCode: | EPA Method 8260B: VOLATILES |      |             |      |
| Client ID:                  | LCSW      |     | Batch ID:      | R6340       |      | RunNo:    | 6340                        |      |             |      |
| Prep Date:                  |           |     | Analysis Date: | 10/17/2012  |      | SeqNo:    | 182457                      |      | Units: µg/L |      |
| Analyte                     | Result    | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD | RPDLimit    | Qual |
| Benzene                     | 23        | 1.0 | 20.00          | 0           | 115  | 70        | 130                         |      |             |      |
| Toluene                     | 21        | 1.0 | 20.00          | 0           | 105  | 80        | 120                         |      |             |      |
| Chlorobenzene               | 21        | 1.0 | 20.00          | 0           | 105  | 70        | 130                         |      |             |      |
| 1,1-Dichloroethene          | 21        | 1.0 | 20.00          | 0           | 107  | 73.7      | 122                         |      |             |      |
| Trichloroethene (TCE)       | 19        | 1.0 | 20.00          | 0           | 94.8 | 70        | 130                         |      |             |      |
| Surr: 1,2-Dichloroethane-d4 | 9.4       |     | 10.00          |             | 93.6 | 70        | 130                         |      |             |      |
| Surr: 4-Bromofluorobenzene  | 9.9       |     | 10.00          |             | 99.3 | 70        | 130                         |      |             |      |
| Surr: Dibromofluoromethane  | 9.6       |     | 10.00          |             | 95.7 | 70        | 130                         |      |             |      |
| Surr: Toluene-d8            | 9.6       |     | 10.00          |             | 96.4 | 70        | 130                         |      |             |      |

|                             |                |     |                |             |      |           |                             |      |             |      |
|-----------------------------|----------------|-----|----------------|-------------|------|-----------|-----------------------------|------|-------------|------|
| Sample ID                   | 1210660-001ams |     | SampType:      | MS          |      | TestCode: | EPA Method 8260B: VOLATILES |      |             |      |
| Client ID:                  | BatchQC        |     | Batch ID:      | R6340       |      | RunNo:    | 6340                        |      |             |      |
| Prep Date:                  |                |     | Analysis Date: | 10/17/2012  |      | SeqNo:    | 182459                      |      | Units: µg/L |      |
| Analyte                     | Result         | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD | RPDLimit    | Qual |
| Benzene                     | 130            | 5.0 | 100.0          | 19.53       | 115  | 66.8      | 128                         |      |             |      |
| Toluene                     | 120            | 5.0 | 100.0          | 18.25       | 100  | 70        | 130                         |      |             |      |
| Chlorobenzene               | 99             | 5.0 | 100.0          | 0           | 98.8 | 70        | 130                         |      |             |      |
| 1,1-Dichloroethene          | 110            | 5.0 | 100.0          | 0           | 109  | 70        | 130                         |      |             |      |
| Trichloroethene (TCE)       | 94             | 5.0 | 100.0          | 0           | 94.0 | 70        | 130                         |      |             |      |
| Surr: 1,2-Dichloroethane-d4 | 45             |     | 50.00          |             | 90.7 | 70        | 130                         |      |             |      |
| Surr: 4-Bromofluorobenzene  | 47             |     | 50.00          |             | 94.9 | 70        | 130                         |      |             |      |
| Surr: Dibromofluoromethane  | 47             |     | 50.00          |             | 94.8 | 70        | 130                         |      |             |      |
| Surr: Toluene-d8            | 47             |     | 50.00          |             | 94.4 | 70        | 130                         |      |             |      |

|                             |                 |     |                |             |      |           |                             |       |             |      |
|-----------------------------|-----------------|-----|----------------|-------------|------|-----------|-----------------------------|-------|-------------|------|
| Sample ID                   | 1210660-001amsd |     | SampType:      | MSD         |      | TestCode: | EPA Method 8260B: VOLATILES |       |             |      |
| Client ID:                  | BatchQC         |     | Batch ID:      | R6340       |      | RunNo:    | 6340                        |       |             |      |
| Prep Date:                  |                 |     | Analysis Date: | 10/17/2012  |      | SeqNo:    | 182460                      |       | Units: µg/L |      |
| Analyte                     | Result          | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                   | %RPD  | RPDLimit    | Qual |
| Benzene                     | 130             | 5.0 | 100.0          | 19.53       | 107  | 66.8      | 128                         | 6.17  | 16.7        |      |
| Toluene                     | 110             | 5.0 | 100.0          | 18.25       | 93.5 | 70        | 130                         | 5.64  | 18.7        |      |
| Chlorobenzene               | 98              | 5.0 | 100.0          | 0           | 98.5 | 70        | 130                         | 0.270 | 19.5        |      |
| 1,1-Dichloroethene          | 100             | 5.0 | 100.0          | 0           | 104  | 70        | 130                         | 4.23  | 16.7        |      |
| Trichloroethene (TCE)       | 92              | 5.0 | 100.0          | 0           | 91.9 | 70        | 130                         | 2.26  | 17.5        |      |
| Surr: 1,2-Dichloroethane-d4 | 46              |     | 50.00          |             | 92.4 | 70        | 130                         | 0     | 0           |      |
| Surr: 4-Bromofluorobenzene  | 48              |     | 50.00          |             | 96.8 | 70        | 130                         | 0     | 0           |      |
| Surr: Dibromofluoromethane  | 47              |     | 50.00          |             | 94.3 | 70        | 130                         | 0     | 0           |      |
| Surr: Toluene-d8            | 47              |     | 50.00          |             | 94.8 | 70        | 130                         | 0     | 0           |      |

### Qualifiers:

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E Value above quantitation range  
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P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4304    |      | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |              |          |      |
| Client ID:                  | PBS        |      | Batch ID: 4304            |             |      | RunNo: 6287                               |           |              |          |      |
| Prep Date:                  | 10/15/2012 |      | Analysis Date: 10/16/2012 |             |      | SeqNo: 181172                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Acenaphthylene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Aniline                     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Anthracene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Azobenzene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benz(a)anthracene           | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(a)pyrene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzoic acid                | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| Benzyl alcohol              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Butyl benzyl phthalate      | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Carbazole                   | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 4-Chloroaniline             | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 2-Chloronaphthalene         | ND         | 0.25 |                           |             |      |                                           |           |              |          |      |
| 2-Chlorophenol              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Chrysene                    | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Di-n-butyl phthalate        | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| Di-n-octyl phthalate        | ND         | 0.25 |                           |             |      |                                           |           |              |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Dibenzofuran                | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25 |                           |             |      |                                           |           |              |          |      |
| Diethyl phthalate           | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Dimethyl phthalate          | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40 |                           |             |      |                                           |           |              |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30 |                           |             |      |                                           |           |              |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40 |                           |             |      |                                           |           |              |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                |                   |      |           |                                        |      |                     |      |
|----------------------------|-------------------|------|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID                  | <b>mb-4304</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID:      | <b>4304</b>       |      | RunNo:    | <b>6287</b>                            |      |                     |      |
| Prep Date:                 | <b>10/15/2012</b> |      | Analysis Date: | <b>10/16/2012</b> |      | SeqNo:    | <b>181172</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte                    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |
| Fluoranthene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Fluorene                   | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobenzene          | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobutadiene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachloroethane           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Isophorone                 | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylphenol             | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 3+4-Methylphenol           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Naphthalene                | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 3-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitroaniline             | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Nitrobenzene               | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitrophenol              | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitrophenol              | ND                | 0.25 |                |                   |      |           |                                        |      |                     |      |
| Pentachlorophenol          | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Phenanthrene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Phenol                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyrene                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyridine                   | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Surr: 2,4,6-Tribromophenol | 3.3               |      | 3.330          |                   | 99.2 | 21.3      | 145                                    |      |                     |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |      | 1.670          |                   | 87.3 | 20        | 131                                    |      |                     |      |
| Surr: 2-Fluorophenol       | 2.9               |      | 3.330          |                   | 86.6 | 11.9      | 130                                    |      |                     |      |
| Surr: 4-Terphenyl-d14      | 1.3               |      | 1.670          |                   | 77.7 | 25.1      | 149                                    |      |                     |      |
| Surr: Nitrobenzene-d5      | 1.4               |      | 1.670          |                   | 86.0 | 25.6      | 137                                    |      |                     |      |
| Surr: Phenol-d5            | 2.8               |      | 3.330          |                   | 85.1 | 20.3      | 132                                    |      |                     |      |

|            |                   |     |                |                   |      |           |                                        |      |                     |      |
|------------|-------------------|-----|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID  | <b>lcs-4304</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |     | Batch ID:      | <b>4304</b>       |      | RunNo:    | <b>6287</b>                            |      |                     |      |
| Prep Date: | <b>10/15/2012</b> |     | Analysis Date: | <b>10/16/2012</b> |      | SeqNo:    | <b>181173</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4304   |      | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       |      | Batch ID: 4304            |             | RunNo: 6287                               |          |              |      |          |      |
| Prep Date:                 | 10/15/2012 |      | Analysis Date: 10/16/2012 |             | SeqNo: 181173                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.5        | 0.20 | 1.670                     | 0           | 87.0                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.8        | 0.50 | 3.330                     | 0           | 83.9                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.3        | 0.20 | 3.330                     | 0           | 70.1                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.2        | 0.20 | 1.670                     | 0           | 70.8                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.8        | 0.50 | 1.670                     | 0           | 107                                       | 44.4     | 104          |      |          | S    |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20 | 1.670                     | 0           | 84.8                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.9        | 0.25 | 3.330                     | 0           | 87.7                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40 | 3.330                     | 0           | 62.0                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5        | 0.20 | 3.330                     | 0           | 76.4                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.2        | 0.20 | 1.670                     | 0           | 71.1                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.3        | 0.20 | 1.670                     | 0           | 79.0                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.3        |      | 3.330                     |             | 98.8                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5        |      | 1.670                     |             | 89.8                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.5        |      | 3.330                     |             | 75.9                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.2        |      | 1.670                     |             | 74.2                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.5        |      | 1.670                     |             | 90.6                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 2.8        |      | 3.330                     |             | 84.9                                      | 20.3     | 132          |      |          |      |

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4337    |      | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |              |          |      |
| Client ID:                  | PBS        |      | Batch ID: 4337            |             |      | RunNo: 6376                               |           |              |          |      |
| Prep Date:                  | 10/16/2012 |      | Analysis Date: 10/21/2012 |             |      | SeqNo: 183352                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Acenaphthylene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Aniline                     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Anthracene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Azobenzene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benz(a)anthracene           | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(a)pyrene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzoic acid                | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| Benzyl alcohol              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Butyl benzyl phthalate      | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |                |            |             |                                 |          |           |      |          |      |
|-----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | mb-4337    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                  | PBS        | Batch ID:      | 4337       | RunNo:      | 6376                            |          |           |      |          |      |
| Prep Date:                  | 10/16/2012 | Analysis Date: | 10/21/2012 | SeqNo:      | 183352                          | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Carbazole                   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Chloroaniline             | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2-Chloronaphthalene         | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| 2-Chlorophenol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Chrysene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Di-n-butyl phthalate        | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Di-n-octyl phthalate        | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dibenzofuran                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| Diethyl phthalate           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dimethyl phthalate          | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30           |            |             |                                 |          |           |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Fluoranthene                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Fluorene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorobenzene           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorobutadiene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorocyclopentadiene   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachloroethane            | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Indeno(1,2,3-cd)pyrene      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Isophorone                  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 1-Methylnaphthalene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Methylnaphthalene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Methylphenol              | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 3+4-Methylphenol            | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| N-Nitrosodi-n-propylamine   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| N-Nitrosodiphenylamine      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Naphthalene                 | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Nitroaniline              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3-Nitroaniline              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Nitroaniline              | ND         | 0.40           |            |             |                                 |          |           |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                                  |             |                                                  |          |                     |      |          |      |
|----------------------------|-------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                  | <b>mb-4337</b>    |      | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID: <b>4337</b>            |             | RunNo: <b>6376</b>                               |          |                     |      |          |      |
| Prep Date:                 | <b>10/16/2012</b> |      | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183352</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result            | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Nitrobenzene               | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Nitrophenol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Nitrophenol              | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| Pentachlorophenol          | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| Phenanthrene               | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Phenol                     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Pyrene                     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Pyridine                   | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.2               |      | 3.330                            |             | 95.0                                             | 21.3     | 145                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |      | 1.670                            |             | 88.8                                             | 20       | 131                 |      |          |      |
| Surr: 2-Fluorophenol       | 2.5               |      | 3.330                            |             | 75.7                                             | 11.9     | 130                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3               |      | 1.670                            |             | 76.8                                             | 25.1     | 149                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.4               |      | 1.670                            |             | 84.4                                             | 25.6     | 137                 |      |          |      |
| Surr: Phenol-d5            | 2.6               |      | 3.330                            |             | 78.4                                             | 20.3     | 132                 |      |          |      |

|                            |                   |      |                                  |             |                                                  |          |                     |      |          |      |
|----------------------------|-------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                  | <b>lcs-4337</b>   |      | SampType: <b>LCS</b>             |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                 | <b>LCSS</b>       |      | Batch ID: <b>4337</b>            |             | RunNo: <b>6376</b>                               |          |                     |      |          |      |
| Prep Date:                 | <b>10/16/2012</b> |      | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183353</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result            | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2               | 0.20 | 1.670                            | 0           | 72.3                                             | 49.7     | 98.1                |      |          |      |
| 4-Chloro-3-methylphenol    | 2.5               | 0.50 | 3.330                            | 0           | 75.5                                             | 43.8     | 89.1                |      |          |      |
| 2-Chlorophenol             | 2.3               | 0.20 | 3.330                            | 0           | 68.0                                             | 41.1     | 96.9                |      |          |      |
| 1,4-Dichlorobenzene        | 1.1               | 0.20 | 1.670                            | 0           | 66.6                                             | 41       | 97.4                |      |          |      |
| 2,4-Dinitrotoluene         | 1.3               | 0.50 | 1.670                            | 0           | 76.5                                             | 44.4     | 104                 |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.2               | 0.20 | 1.670                            | 0           | 74.5                                             | 39.1     | 86.9                |      |          |      |
| 4-Nitrophenol              | 2.1               | 0.25 | 3.330                            | 0           | 63.7                                             | 44.2     | 107                 |      |          |      |
| Pentachlorophenol          | 2.1               | 0.40 | 3.330                            | 0           | 62.9                                             | 36.2     | 80                  |      |          |      |
| Phenol                     | 2.2               | 0.20 | 3.330                            | 0           | 66.8                                             | 42.7     | 92.7                |      |          |      |
| Pyrene                     | 1.2               | 0.20 | 1.670                            | 0           | 74.5                                             | 34.7     | 98.8                |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.3               | 0.20 | 1.670                            | 0           | 78.7                                             | 37.8     | 98.3                |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.4               |      | 3.330                            |             | 102                                              | 21.3     | 145                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |      | 1.670                            |             | 89.9                                             | 20       | 131                 |      |          |      |
| Surr: 2-Fluorophenol       | 2.4               |      | 3.330                            |             | 71.3                                             | 11.9     | 130                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.4               |      | 1.670                            |             | 85.9                                             | 25.1     | 149                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.6               |      | 1.670                            |             | 93.1                                             | 25.6     | 137                 |      |          |      |
| Surr: Phenol-d5            | 2.9               |      | 3.330                            |             | 86.8                                             | 20.3     | 132                 |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|----------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210653-001CMS |      | SampType: MS              |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | BatchQC        |      | Batch ID: 4304            |             | RunNo: 6376                               |          |              |      |          |      |
| Prep Date:                 | 10/15/2012     |      | Analysis Date: 10/21/2012 |             | SeqNo: 183387                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2            | 0.40 | 1.664                     | 0           | 74.7                                      | 25.6     | 142          |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6            | 1.0  | 3.318                     | 0           | 78.7                                      | 63.7     | 100          |      |          |      |
| 2-Chlorophenol             | 2.4            | 0.40 | 3.318                     | 0           | 73.0                                      | 22.2     | 126          |      |          |      |
| 1,4-Dichlorobenzene        | 1.1            | 0.40 | 1.664                     | 0           | 69.0                                      | 12.4     | 115          |      |          |      |
| 2,4-Dinitrotoluene         | 1.3            | 1.0  | 1.664                     | 0           | 78.8                                      | 14.9     | 142          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4            | 0.40 | 1.664                     | 0           | 81.4                                      | 13.9     | 136          |      |          |      |
| 4-Nitrophenol              | 2.4            | 0.50 | 3.318                     | 0           | 73.6                                      | 36.7     | 130          |      |          |      |
| Pentachlorophenol          | 2.2            | 0.80 | 3.318                     | 0           | 66.4                                      | 15.8     | 113          |      |          |      |
| Phenol                     | 2.5            | 0.40 | 3.318                     | 0           | 73.9                                      | 25.1     | 124          |      |          |      |
| Pyrene                     | 1.5            | 0.40 | 1.664                     | 0           | 88.1                                      | 35.8     | 124          |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4            | 0.40 | 1.664                     | 0           | 82.7                                      | 30       | 113          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.3            |      | 3.318                     |             | 101                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6            |      | 1.664                     |             | 94.0                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.9            |      | 3.318                     |             | 88.7                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5            |      | 1.664                     |             | 91.7                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7            |      | 1.664                     |             | 103                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.2            |      | 3.318                     |             | 97.8                                      | 20.3     | 132          |      |          |      |

|                            |                    |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|--------------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210692-010CMS     |      | SampType: MS              |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | SWMU 1-27 (1.5-2') |      | Batch ID: 4337            |             | RunNo: 6376                               |          |              |      |          |      |
| Prep Date:                 | 10/16/2012         |      | Analysis Date: 10/21/2012 |             | SeqNo: 183388                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result             | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2                | 0.20 | 1.680                     | 0           | 74.0                                      | 25.6     | 142          |      |          |      |
| 4-Chloro-3-methylphenol    | 2.5                | 0.50 | 3.350                     | 0           | 75.2                                      | 63.7     | 100          |      |          |      |
| 2-Chlorophenol             | 2.4                | 0.20 | 3.350                     | 0           | 70.8                                      | 22.2     | 126          |      |          |      |
| 1,4-Dichlorobenzene        | 1.2                | 0.20 | 1.680                     | 0           | 71.7                                      | 12.4     | 115          |      |          |      |
| 2,4-Dinitrotoluene         | 1.3                | 0.50 | 1.680                     | 0           | 79.4                                      | 14.9     | 142          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.3                | 0.20 | 1.680                     | 0           | 79.8                                      | 13.9     | 136          |      |          |      |
| 4-Nitrophenol              | 2.4                | 0.25 | 3.350                     | 0.08908     | 69.3                                      | 36.7     | 130          |      |          |      |
| Pentachlorophenol          | 2.2                | 0.40 | 3.350                     | 0           | 67.0                                      | 15.8     | 113          |      |          |      |
| Phenol                     | 2.3                | 0.20 | 3.350                     | 0           | 69.6                                      | 25.1     | 124          |      |          |      |
| Pyrene                     | 1.2                | 0.20 | 1.680                     | 0           | 74.2                                      | 35.8     | 124          |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4                | 0.20 | 1.680                     | 0           | 83.9                                      | 30       | 113          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.3                |      | 3.350                     |             | 97.8                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6                |      | 1.680                     |             | 94.5                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.7                |      | 3.350                     |             | 79.9                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.4                |      | 1.680                     |             | 83.3                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7                |      | 1.680                     |             | 104                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.1                |      | 3.350                     |             | 93.0                                      | 20.3     | 132          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                 |      |                           |                                           |      |              |           |       |          |      |
|----------------------------|-----------------|------|---------------------------|-------------------------------------------|------|--------------|-----------|-------|----------|------|
| Sample ID                  | 1210653-001CMSD |      | SampType: MSD             | TestCode: EPA Method 8270C: Semivolatiles |      |              |           |       |          |      |
| Client ID:                 | BatchQC         |      | Batch ID: 4304            | RunNo: 6376                               |      |              |           |       |          |      |
| Prep Date:                 | 10/15/2012      |      | Analysis Date: 10/21/2012 | SeqNo: 183389                             |      | Units: mg/Kg |           |       |          |      |
| Analyte                    | Result          | PQL  | SPK value                 | SPK Ref Val                               | %REC | LowLimit     | HighLimit | %RPD  | RPDLimit | Qual |
| Acenaphthene               | 1.3             | 0.40 | 1.672                     | 0                                         | 75.2 | 25.6         | 142       | 1.09  | 22       |      |
| 4-Chloro-3-methylphenol    | 2.4             | 1.0  | 3.334                     | 0                                         | 73.0 | 63.7         | 100       | 7.05  | 27.3     |      |
| 2-Chlorophenol             | 2.3             | 0.40 | 3.334                     | 0                                         | 67.8 | 22.2         | 126       | 6.86  | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.0             | 0.40 | 1.672                     | 0                                         | 61.9 | 12.4         | 115       | 10.4  | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3             | 1.0  | 1.672                     | 0                                         | 77.2 | 14.9         | 142       | 1.50  | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3             | 0.40 | 1.672                     | 0                                         | 75.4 | 13.9         | 136       | 7.14  | 22.6     |      |
| 4-Nitrophenol              | 2.4             | 0.50 | 3.334                     | 0                                         | 73.4 | 36.7         | 130       | 0.281 | 20       |      |
| Pentachlorophenol          | 2.2             | 0.80 | 3.334                     | 0                                         | 66.2 | 15.8         | 113       | 0.258 | 27.1     |      |
| Phenol                     | 2.1             | 0.40 | 3.334                     | 0                                         | 62.9 | 25.1         | 124       | 15.6  | 32.2     |      |
| Pyrene                     | 1.3             | 0.40 | 1.672                     | 0                                         | 79.2 | 35.8         | 124       | 10.1  | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.3             | 0.40 | 1.672                     | 0                                         | 80.6 | 30           | 113       | 2.14  | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 3.1             |      | 3.334                     |                                           | 92.3 | 21.3         | 145       | 0     | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5             |      | 1.672                     |                                           | 87.3 | 20           | 131       | 0     | 0        |      |
| Surr: 2-Fluorophenol       | 2.8             |      | 3.334                     |                                           | 83.7 | 11.9         | 130       | 0     | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.4             |      | 1.672                     |                                           | 84.8 | 25.1         | 149       | 0     | 0        |      |
| Surr: Nitrobenzene-d5      | 1.5             |      | 1.672                     |                                           | 91.5 | 25.6         | 137       | 0     | 0        |      |
| Surr: Phenol-d5            | 3.0             |      | 3.334                     |                                           | 88.5 | 20.3         | 132       | 0     | 0        |      |

|                            |                    |      |                           |                                           |      |              |           |       |          |      |
|----------------------------|--------------------|------|---------------------------|-------------------------------------------|------|--------------|-----------|-------|----------|------|
| Sample ID                  | 1210692-010CMSD    |      | SampType: MSD             | TestCode: EPA Method 8270C: Semivolatiles |      |              |           |       |          |      |
| Client ID:                 | SWMU 1-27 (1.5-2') |      | Batch ID: 4337            | RunNo: 6376                               |      |              |           |       |          |      |
| Prep Date:                 | 10/16/2012         |      | Analysis Date: 10/21/2012 | SeqNo: 183390                             |      | Units: mg/Kg |           |       |          |      |
| Analyte                    | Result             | PQL  | SPK value                 | SPK Ref Val                               | %REC | LowLimit     | HighLimit | %RPD  | RPDLimit | Qual |
| Acenaphthene               | 1.3                | 0.20 | 1.671                     | 0                                         | 76.8 | 25.6         | 142       | 3.14  | 22       |      |
| 4-Chloro-3-methylphenol    | 2.7                | 0.50 | 3.332                     | 0                                         | 79.6 | 63.7         | 100       | 5.18  | 27.3     |      |
| 2-Chlorophenol             | 2.3                | 0.20 | 3.332                     | 0                                         | 70.1 | 22.2         | 126       | 1.57  | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1                | 0.20 | 1.671                     | 0                                         | 68.7 | 12.4         | 115       | 4.83  | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3                | 0.50 | 1.671                     | 0                                         | 80.6 | 14.9         | 142       | 0.963 | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3                | 0.20 | 1.671                     | 0                                         | 80.6 | 13.9         | 136       | 0.435 | 22.6     |      |
| 4-Nitrophenol              | 2.5                | 0.25 | 3.332                     | 0.08908                                   | 70.9 | 36.7         | 130       | 1.76  | 20       |      |
| Pentachlorophenol          | 2.1                | 0.40 | 3.332                     | 0                                         | 63.8 | 15.8         | 113       | 5.36  | 27.1     |      |
| Phenol                     | 2.3                | 0.20 | 3.332                     | 0                                         | 68.6 | 25.1         | 124       | 1.93  | 32.2     |      |
| Pyrene                     | 1.2                | 0.20 | 1.671                     | 0                                         | 71.2 | 35.8         | 124       | 4.60  | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4                | 0.20 | 1.671                     | 0                                         | 83.7 | 30           | 113       | 0.749 | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 3.2                |      | 3.332                     |                                           | 97.1 | 21.3         | 145       | 0     | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.6                |      | 1.671                     |                                           | 98.0 | 20           | 131       | 0     | 0        |      |
| Surr: 2-Fluorophenol       | 2.6                |      | 3.332                     |                                           | 76.9 | 11.9         | 130       | 0     | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.3                |      | 1.671                     |                                           | 78.6 | 25.1         | 149       | 0     | 0        |      |
| Surr: Nitrobenzene-d5      | 1.7                |      | 1.671                     |                                           | 101  | 25.6         | 137       | 0     | 0        |      |
| Surr: Phenol-d5            | 3.0                |      | 3.332                     |                                           | 89.3 | 20.3         | 132       | 0     | 0        |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |     |                                  |             |                                                  |          |                    |      |          |      |
|-----------------------------|-------------------|-----|----------------------------------|-------------|--------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>mb-4322</b>    |     | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                    |      |          |      |
| Client ID:                  | <b>PBW</b>        |     | Batch ID: <b>4322</b>            |             | RunNo: <b>6287</b>                               |          |                    |      |          |      |
| Prep Date:                  | <b>10/16/2012</b> |     | Analysis Date: <b>10/16/2012</b> |             | SeqNo: <b>181174</b>                             |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                     | Result            | PQL | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Acenaphthylene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Aniline                     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Anthracene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Azobenzene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benz(a)anthracene           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(a)pyrene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(b)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(g,h,i)perylene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(k)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzoic acid                | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| Benzyl alcohol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethoxy)methane  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethyl)ether     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroisopropyl)ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Bromophenyl phenyl ether  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Butyl benzyl phthalate      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Carbazole                   | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloroaniline             | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chloronaphthalene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chlorophenol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Chrysene                    | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-butyl phthalate        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-octyl phthalate        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenzofuran                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Diethyl phthalate           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dimethyl phthalate          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dichlorophenol          | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dimethylphenol          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrophenol           | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                |            |             |                                 |          |           |      |          |      |
|----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                  | mb-4322    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                 | PBW        | Batch ID:      | 4322       | RunNo:      | 6287                            |          |           |      |          |      |
| Prep Date:                 | 10/16/2012 | Analysis Date: | 10/16/2012 | SeqNo:      | 181174                          | Units:   | µg/L      |      |          |      |
| Analyte                    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoranthene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Fluorene                   | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorobenzene          | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorobutadiene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachlorocyclopentadiene  | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Hexachloroethane           | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Indeno(1,2,3-cd)pyrene     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Isophorone                 | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 1-Methylnaphthalene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Methylnaphthalene        | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Methylphenol             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 3+4-Methylphenol           | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodi-n-propylamine  | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodimethylamine     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| N-Nitrosodiphenylamine     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Naphthalene                | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 3-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 4-Nitroaniline             | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Nitrobenzene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2-Nitrophenol              | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 4-Nitrophenol              | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pentachlorophenol          | ND         | 20             |            |             |                                 |          |           |      |          |      |
| Phenanthrene               | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Phenol                     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pyrene                     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Pyridine                   | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 1,2,4-Trichlorobenzene     | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2,4,5-Trichlorophenol      | ND         | 10             |            |             |                                 |          |           |      |          |      |
| 2,4,6-Trichlorophenol      | ND         | 10             |            |             |                                 |          |           |      |          |      |
| Surr: 2,4,6-Tribromophenol | 140        |                | 200.0      |             | 71.8                            | 44.2     | 126       |      |          |      |
| Surr: 2-Fluorobiphenyl     | 86         |                | 100.0      |             | 86.2                            | 37       | 114       |      |          |      |
| Surr: 2-Fluorophenol       | 110        |                | 200.0      |             | 56.3                            | 23.4     | 98        |      |          |      |
| Surr: 4-Terphenyl-d14      | 76         |                | 100.0      |             | 75.8                            | 41.3     | 116       |      |          |      |
| Surr: Nitrobenzene-d5      | 98         |                | 100.0      |             | 97.6                            | 39.5     | 118       |      |          |      |
| Surr: Phenol-d5            | 100        |                | 200.0      |             | 52.2                            | 20.9     | 95.9      |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |             |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | Ics-4322   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |             |      |          |      |
| Client ID:                 | LCSW       | Batch ID: 4322            |           |             | RunNo: 6287                               |          |             |      |          |      |
| Prep Date:                 | 10/16/2012 | Analysis Date: 10/16/2012 |           |             | SeqNo: 181175                             |          | Units: µg/L |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Acenaphthene               | 77         | 10                        | 100.0     | 0           | 77.2                                      | 38.2     | 99.4        |      |          |      |
| 4-Chloro-3-methylphenol    | 170        | 10                        | 200.0     | 0           | 85.8                                      | 35.5     | 108         |      |          |      |
| 2-Chlorophenol             | 150        | 10                        | 200.0     | 0           | 74.2                                      | 29.8     | 106         |      |          |      |
| 1,4-Dichlorobenzene        | 57         | 10                        | 100.0     | 0           | 57.1                                      | 32.6     | 91.5        |      |          |      |
| 2,4-Dinitrotoluene         | 98         | 10                        | 100.0     | 0           | 98.4                                      | 44.7     | 112         |      |          |      |
| N-Nitrosodi-n-propylamine  | 89         | 10                        | 100.0     | 0           | 88.6                                      | 38.5     | 105         |      |          |      |
| 4-Nitrophenol              | 75         | 10                        | 200.0     | 0           | 37.6                                      | 11.6     | 73.1        |      |          |      |
| Pentachlorophenol          | 86         | 20                        | 200.0     | 0           | 42.8                                      | 20.2     | 93          |      |          |      |
| Phenol                     | 92         | 10                        | 200.0     | 0           | 46.2                                      | 23       | 66.1        |      |          |      |
| Pyrene                     | 76         | 10                        | 100.0     | 0           | 76.1                                      | 40.1     | 101         |      |          |      |
| 1,2,4-Trichlorobenzene     | 66         | 10                        | 100.0     | 0           | 65.6                                      | 37.7     | 99.1        |      |          |      |
| Surr: 2,4,6-Tribromophenol | 170        |                           | 200.0     |             | 85.9                                      | 44.2     | 126         |      |          |      |
| Surr: 2-Fluorobiphenyl     | 79         |                           | 100.0     |             | 78.9                                      | 37       | 114         |      |          |      |
| Surr: 2-Fluorophenol       | 120        |                           | 200.0     |             | 58.0                                      | 23.4     | 98          |      |          |      |
| Surr: 4-Terphenyl-d14      | 81         |                           | 100.0     |             | 80.7                                      | 41.3     | 116         |      |          |      |
| Surr: Nitrobenzene-d5      | 85         |                           | 100.0     |             | 84.6                                      | 39.5     | 118         |      |          |      |
| Surr: Phenol-d5            | 100        |                           | 200.0     |             | 52.3                                      | 20.9     | 95.9        |      |          |      |

|                            |            |     |                           |             |      |                                           |           |             |          |      |  |
|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|-------------|----------|------|--|
| Sample ID                  | Icsd-4322  |     | SampType: LCSD            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |             |          |      |  |
| Client ID:                 | LCSS02     |     | Batch ID: 4322            |             |      | RunNo: 6287                               |           |             |          |      |  |
| Prep Date:                 | 10/16/2012 |     | Analysis Date: 10/16/2012 |             |      | SeqNo: 181176                             |           | Units: µg/L |          |      |  |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD        | RPDLimit | Qual |  |
| Acenaphthene               | 78         | 10  | 100.0                     | 0           | 77.9 | 38.2                                      | 99.4      | 0.980       | 20       |      |  |
| 4-Chloro-3-methylphenol    | 180        | 10  | 200.0                     | 0           | 88.1 | 35.5                                      | 108       | 2.61        | 20       |      |  |
| 2-Chlorophenol             | 150        | 10  | 200.0                     | 0           | 76.6 | 29.8                                      | 106       | 3.08        | 20       |      |  |
| 1,4-Dichlorobenzene        | 60         | 10  | 100.0                     | 0           | 59.6 | 32.6                                      | 91.5      | 4.28        | 20       |      |  |
| 2,4-Dinitrotoluene         | 110        | 10  | 100.0                     | 0           | 106  | 44.7                                      | 112       | 7.64        | 20       |      |  |
| N-Nitrosodi-n-propylamine  | 89         | 10  | 100.0                     | 0           | 88.7 | 38.5                                      | 105       | 0.113       | 20       |      |  |
| 4-Nitrophenol              | 100        | 10  | 200.0                     | 0           | 50.4 | 11.6                                      | 73.1      | 28.9        | 20       | R    |  |
| Pentachlorophenol          | 110        | 20  | 200.0                     | 0           | 55.0 | 20.2                                      | 93        | 25.2        | 20       | R    |  |
| Phenol                     | 97         | 10  | 200.0                     | 0           | 48.6 | 23                                        | 66.1      | 5.21        | 20       |      |  |
| Pyrene                     | 81         | 10  | 100.0                     | 0           | 81.0 | 40.1                                      | 101       | 6.19        | 20       |      |  |
| 1,2,4-Trichlorobenzene     | 66         | 10  | 100.0                     | 0           | 66.3 | 37.7                                      | 99.1      | 0.970       | 20       |      |  |
| Surr: 2,4,6-Tribromophenol | 190        |     | 200.0                     |             | 93.8 | 44.2                                      | 126       | 0           | 0        |      |  |
| Surr: 2-Fluorobiphenyl     | 82         |     | 100.0                     |             | 81.6 | 37                                        | 114       | 0           | 0        |      |  |
| Surr: 2-Fluorophenol       | 120        |     | 200.0                     |             | 60.8 | 23.4                                      | 98        | 0           | 0        |      |  |
| Surr: 4-Terphenyl-d14      | 78         |     | 100.0                     |             | 78.5 | 41.3                                      | 116       | 0           | 0        |      |  |
| Surr: Nitrobenzene-d5      | 86         |     | 100.0                     |             | 85.7 | 39.5                                      | 118       | 0           | 0        |      |  |
| Surr: Phenol-d5            | 110        |     | 200.0                     |             | 53.9 | 20.9                                      | 95.9      | 0           | 0        |      |  |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4424    |       | SampType: MBLK            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4424            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185307                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4424   |       | SampType: LCS             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4424            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185308                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 102                                | 80       | 120          |      |          |      |

|            |                  |       |                           |             |                                    |          |              |      |          |      |
|------------|------------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210692-019CMS   |       | SampType: MS              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | SWMU 1-35 (4-6') |       | Batch ID: 4424            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012       |       | Analysis Date: 10/23/2012 |             | SeqNo: 185333                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result           | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.18             | 0.033 | 0.1641                    | 0.01987     | 98.5                               | 75       | 125          |      |          |      |

|            |                  |       |                           |             |                                    |          |              |      |          |      |
|------------|------------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210692-019CMSD  |       | SampType: MSD             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | SWMU 1-35 (4-6') |       | Batch ID: 4424            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012       |       | Analysis Date: 10/23/2012 |             | SeqNo: 185334                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result           | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.19             | 0.033 | 0.1665                    | 0.01987     | 100                                | 75       | 125          | 2.83 | 20       |      |

|            |            |                           |           |             |                                    |          |              |      |          |      |
|------------|------------|---------------------------|-----------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4425    | SampType: MBLK            |           |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        | Batch ID: 4425            |           |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 | Analysis Date: 10/23/2012 |           |             | SeqNo: 185335                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.033                     |           |             |                                    |          |              |      |          |      |

|            |            |       |           |                |            |          |           |           |                          |      |  |
|------------|------------|-------|-----------|----------------|------------|----------|-----------|-----------|--------------------------|------|--|
| Sample ID  | LCS-4425   |       |           | SampType:      | LCS        |          |           | TestCode: | EPA Method 7471: Mercury |      |  |
| Client ID: | LCSS       |       |           | Batch ID:      | 4425       |          |           | RunNo:    | 6443                     |      |  |
| Prep Date: | 10/19/2012 |       |           | Analysis Date: | 10/23/2012 |          |           | SeqNo:    | 185336                   |      |  |
|            |            |       |           |                |            |          |           | Units:    | mg/kg                    |      |  |
| Analyte    | Result     | PQL   | SPK value | SPK Ref Val    | %REC       | LowLimit | HighLimit | %RPD      | RPDLimit                 | Qual |  |
| Mercury    | 0.17       | 0.033 | 0.1667    | 0              | 99.4       | 80       | 120       |           |                          |      |  |

|            |                |       |                           |             |                                    |          |              |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-014CMS |       | SampType: MS              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4425            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012     |       | Analysis Date: 10/23/2012 |             | SeqNo: 185361                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.20           | 0.033 | 0.1670                    | 0.02118     | 109                                | 75       | 125          |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |                |            |             |                          |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210811-014CMSD | SampType:      | MSD        | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4425       | RunNo:      | 6443                     |          |           |      |          |      |
| Prep Date: | 10/19/2012      | Analysis Date: | 10/23/2012 | SeqNo:      | 185362                   | Units:   | mg/kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.20            | 0.033          | 0.1653     | 0.02118     | 109                      | 75       | 125       | 1.12 | 20       |      |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4498    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4498       | RunNo:    | 6499                          |        |       |  |  |  |
| Prep Date: | 10/24/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 187241                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Silver    | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4498   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4498       | RunNo:    | 6499                          |        |       |  |  |  |
| Prep Date: | 10/24/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 187242                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 24     | 2.5  | 25.00     | 0           | 95.8 | 80       | 120       |      |          |      |
| Arsenic   | 26     | 2.5  | 25.00     | 0           | 104  | 80       | 120       |      |          |      |
| Barium    | 24     | 0.10 | 25.00     | 0           | 97.3 | 80       | 120       |      |          |      |
| Beryllium | 26     | 0.15 | 25.00     | 0           | 104  | 80       | 120       |      |          |      |
| Cadmium   | 25     | 0.10 | 25.00     | 0           | 101  | 80       | 120       |      |          |      |
| Chromium  | 24     | 0.30 | 25.00     | 0           | 97.8 | 80       | 120       |      |          |      |
| Cobalt    | 24     | 0.30 | 25.00     | 0           | 95.8 | 80       | 120       |      |          |      |
| Lead      | 25     | 0.25 | 25.00     | 0           | 99.0 | 80       | 120       |      |          |      |
| Manganese | 24     | 0.10 | 25.00     | 0.03500     | 95.1 | 80       | 120       |      |          |      |
| Nickel    | 24     | 0.50 | 25.00     | 0           | 94.9 | 80       | 120       |      |          |      |
| Selenium  | 25     | 2.5  | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Silver    | 5.1    | 0.25 | 5.000     | 0           | 102  | 80       | 120       |      |          |      |
| Vanadium  | 25     | 2.5  | 25.00     | 0           | 101  | 80       | 120       |      |          |      |
| Zinc      | 24     | 2.5  | 25.00     | 0           | 97.2 | 80       | 120       |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4499    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4499       | RunNo:    | 6598                          |        |       |  |  |  |
| Prep Date: | 10/24/2012 | Analysis Date: | 10/31/2012 | SeqNo:    | 190715                        | Units: | mg/Kg |  |  |  |

| Analyte  | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|-----|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony | ND     | 2.5 |           |             |      |          |           |      |          |      |
| Arsenic  | ND     | 2.5 |           |             |      |          |           |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |      |                           |             |      |                                         |           |              |          |      |
|------------|------------|------|---------------------------|-------------|------|-----------------------------------------|-----------|--------------|----------|------|
| Sample ID  | MB-4499    |      | SampType: MBLK            |             |      | TestCode: EPA Method 6010B: Soil Metals |           |              |          |      |
| Client ID: | PBS        |      | Batch ID: 4499            |             |      | RunNo: 6598                             |           |              |          |      |
| Prep Date: | 10/24/2012 |      | Analysis Date: 10/31/2012 |             |      | SeqNo: 190715                           |           | Units: mg/Kg |          |      |
| Analyte    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                | HighLimit | %RPD         | RPDLimit | Qual |
| Barium     | ND         | 0.10 |                           |             |      |                                         |           |              |          |      |
| Beryllium  | ND         | 0.15 |                           |             |      |                                         |           |              |          |      |
| Cadmium    | ND         | 0.10 |                           |             |      |                                         |           |              |          |      |
| Chromium   | ND         | 0.30 |                           |             |      |                                         |           |              |          |      |
| Lead       | ND         | 0.25 |                           |             |      |                                         |           |              |          |      |
| Manganese  | ND         | 0.10 |                           |             |      |                                         |           |              |          |      |
| Nickel     | ND         | 0.50 |                           |             |      |                                         |           |              |          |      |
| Selenium   | ND         | 2.5  |                           |             |      |                                         |           |              |          |      |
| Silver     | ND         | 0.25 |                           |             |      |                                         |           |              |          |      |
| Vanadium   | ND         | 2.5  |                           |             |      |                                         |           |              |          |      |

|            |            |      |                           |             |      |                                         |           |              |          |      |
|------------|------------|------|---------------------------|-------------|------|-----------------------------------------|-----------|--------------|----------|------|
| Sample ID  | LCS-4499   |      | SampType: LCS             |             |      | TestCode: EPA Method 6010B: Soil Metals |           |              |          |      |
| Client ID: | LCSS       |      | Batch ID: 4499            |             |      | RunNo: 6598                             |           |              |          |      |
| Prep Date: | 10/24/2012 |      | Analysis Date: 10/31/2012 |             |      | SeqNo: 190716                           |           | Units: mg/Kg |          |      |
| Analyte    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                | HighLimit | %RPD         | RPDLimit | Qual |
| Antimony   | 27         | 2.5  | 25.00                     | 0           | 108  | 80                                      | 120       |              |          |      |
| Arsenic    | 29         | 2.5  | 25.00                     | 0           | 117  | 80                                      | 120       |              |          |      |
| Barium     | 26         | 0.10 | 25.00                     | 0           | 104  | 80                                      | 120       |              |          |      |
| Beryllium  | 28         | 0.15 | 25.00                     | 0.01050     | 114  | 80                                      | 120       |              |          |      |
| Cadmium    | 27         | 0.10 | 25.00                     | 0           | 108  | 80                                      | 120       |              |          |      |
| Chromium   | 26         | 0.30 | 25.00                     | 0           | 102  | 80                                      | 120       |              |          |      |
| Lead       | 27         | 0.25 | 25.00                     | 0           | 106  | 80                                      | 120       |              |          |      |
| Manganese  | 26         | 0.10 | 25.00                     | 0.02950     | 103  | 80                                      | 120       |              |          |      |
| Nickel     | 26         | 0.50 | 25.00                     | 0           | 105  | 80                                      | 120       |              |          |      |
| Selenium   | 32         | 2.5  | 25.00                     | 0           | 128  | 80                                      | 120       |              |          | S    |
| Silver     | 5.1        | 0.25 | 5.000                     | 0           | 101  | 80                                      | 120       |              |          |      |
| Vanadium   | 26         | 2.5  | 25.00                     | 0.08900     | 105  | 80                                      | 120       |              |          |      |

|            |            |     |                          |             |      |                                         |           |              |          |      |
|------------|------------|-----|--------------------------|-------------|------|-----------------------------------------|-----------|--------------|----------|------|
| Sample ID  | MB-4498    |     | SampType: MBLK           |             |      | TestCode: EPA Method 6010B: Soil Metals |           |              |          |      |
| Client ID: | PBS        |     | Batch ID: 4498           |             |      | RunNo: 6670                             |           |              |          |      |
| Prep Date: | 10/24/2012 |     | Analysis Date: 11/2/2012 |             |      | SeqNo: 192433                           |           | Units: mg/Kg |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC | LowLimit                                | HighLimit | %RPD         | RPDLimit | Qual |
| Iron       | ND         | 1.0 |                          |             |      |                                         |           |              |          |      |

|            |            |     |                          |             |      |                                         |           |              |          |      |
|------------|------------|-----|--------------------------|-------------|------|-----------------------------------------|-----------|--------------|----------|------|
| Sample ID  | LCS-4498   |     | SampType: LCS            |             |      | TestCode: EPA Method 6010B: Soil Metals |           |              |          |      |
| Client ID: | LCSS       |     | Batch ID: 4498           |             |      | RunNo: 6670                             |           |              |          |      |
| Prep Date: | 10/24/2012 |     | Analysis Date: 11/2/2012 |             |      | SeqNo: 192434                           |           | Units: mg/Kg |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC | LowLimit                                | HighLimit | %RPD         | RPDLimit | Qual |
| Iron       | 27         | 1.0 | 25.00                    | 0           | 106  | 80                                      | 120       |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                   |      |                |                  |      |           |                                      |      |                     |      |
|------------|-------------------|------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>MB-4499</b>    |      | SampType:      | <b>MBLK</b>      |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>PBS</b>        |      | Batch ID:      | <b>4499</b>      |      | RunNo:    | <b>6670</b>                          |      |                     |      |
| Prep Date: | <b>10/24/2012</b> |      | Analysis Date: | <b>11/2/2012</b> |      | SeqNo:    | <b>192435</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL  | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Cobalt     | ND                | 0.30 |                |                  |      |           |                                      |      |                     |      |
| Iron       | ND                | 1.0  |                |                  |      |           |                                      |      |                     |      |
| Selenium   | ND                | 2.5  |                |                  |      |           |                                      |      |                     |      |
| Zinc       | ND                | 2.5  |                |                  |      |           |                                      |      |                     |      |

|            |                   |      |                |                  |      |           |                                      |      |                     |      |
|------------|-------------------|------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>LCS-4499</b>   |      | SampType:      | <b>LCS</b>       |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |      | Batch ID:      | <b>4499</b>      |      | RunNo:    | <b>6670</b>                          |      |                     |      |
| Prep Date: | <b>10/24/2012</b> |      | Analysis Date: | <b>11/2/2012</b> |      | SeqNo:    | <b>192436</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL  | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Cobalt     | 26                | 0.30 | 25.00          | 0                | 102  | 80        | 120                                  |      |                     |      |
| Iron       | 27                | 1.0  | 25.00          | 0                | 106  | 80        | 120                                  |      |                     |      |
| Selenium   | 29                | 2.5  | 25.00          | 0                | 117  | 80        | 120                                  |      |                     |      |
| Zinc       | 27                | 2.5  | 25.00          | 0                | 106  | 80        | 120                                  |      |                     |      |

|            |                           |      |                |                  |      |           |                                      |      |                     |      |
|------------|---------------------------|------|----------------|------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>1210692-013CMS</b>     |      | SampType:      | <b>MS</b>        |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>SWMU 1-28 (1.5-2')</b> |      | Batch ID:      | <b>4498</b>      |      | RunNo:    | <b>6670</b>                          |      |                     |      |
| Prep Date: | <b>10/24/2012</b>         |      | Analysis Date: | <b>11/2/2012</b> |      | SeqNo:    | <b>192482</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result                    | PQL  | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Antimony   | ND                        | 12   | 24.95          | 0                | 33.2 | 75        | 125                                  |      |                     | S    |
| Arsenic    | 26                        | 12   | 24.95          | 0                | 103  | 75        | 125                                  |      |                     |      |
| Beryllium  | 27                        | 0.75 | 24.95          | 0.5601           | 107  | 75        | 125                                  |      |                     |      |
| Cadmium    | 25                        | 0.50 | 24.95          | 0                | 102  | 75        | 125                                  |      |                     |      |
| Chromium   | 34                        | 1.5  | 24.95          | 5.956            | 111  | 75        | 125                                  |      |                     |      |
| Cobalt     | 29                        | 1.5  | 24.95          | 4.075            | 99.1 | 75        | 125                                  |      |                     |      |
| Lead       | 26                        | 1.2  | 24.95          | 3.120            | 93.7 | 75        | 125                                  |      |                     |      |
| Nickel     | 29                        | 2.5  | 24.95          | 4.818            | 98.6 | 75        | 125                                  |      |                     |      |
| Selenium   | 20                        | 12   | 24.95          | 0                | 78.9 | 75        | 125                                  |      |                     |      |
| Silver     | 5.0                       | 1.2  | 4.990          | 0                | 101  | 75        | 125                                  |      |                     |      |
| Vanadium   | 47                        | 12   | 24.95          | 21.58            | 104  | 75        | 125                                  |      |                     |      |
| Zinc       | 39                        | 12   | 24.95          | 11.91            | 109  | 75        | 125                                  |      |                     |      |

|            |                           |      |                |                  |      |           |                                      |       |                     |      |
|------------|---------------------------|------|----------------|------------------|------|-----------|--------------------------------------|-------|---------------------|------|
| Sample ID  | <b>1210692-013CMSD</b>    |      | SampType:      | <b>MSD</b>       |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |       |                     |      |
| Client ID: | <b>SWMU 1-28 (1.5-2')</b> |      | Batch ID:      | <b>4498</b>      |      | RunNo:    | <b>6670</b>                          |       |                     |      |
| Prep Date: | <b>10/24/2012</b>         |      | Analysis Date: | <b>11/2/2012</b> |      | SeqNo:    | <b>192483</b>                        |       | Units: <b>mg/Kg</b> |      |
| Analyte    | Result                    | PQL  | SPK value      | SPK Ref Val      | %REC | LowLimit  | HighLimit                            | %RPD  | RPDLimit            | Qual |
| Antimony   | ND                        | 13   | 24.98          | 0                | 33.0 | 75        | 125                                  | 0     | 20                  | S    |
| Arsenic    | 27                        | 13   | 24.98          | 0                | 107  | 75        | 125                                  | 4.04  | 20                  |      |
| Beryllium  | 27                        | 0.75 | 24.98          | 0.5601           | 106  | 75        | 125                                  | 0.755 | 20                  |      |
| Cadmium    | 25                        | 0.50 | 24.98          | 0                | 100  | 75        | 125                                  | 1.44  | 20                  |      |

### Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                    |     |                          |             |                                         |          |              |       |          |      |
|------------|--------------------|-----|--------------------------|-------------|-----------------------------------------|----------|--------------|-------|----------|------|
| Sample ID  | 1210692-013CMSD    |     | SampType: MSD            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |       |          |      |
| Client ID: | SWMU 1-28 (1.5-2') |     | Batch ID: 4498           |             | RunNo: 6670                             |          |              |       |          |      |
| Prep Date: | 10/24/2012         |     | Analysis Date: 11/2/2012 |             | SeqNo: 192483                           |          | Units: mg/Kg |       |          |      |
| Analyte    | Result             | PQL | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD  | RPDLimit | Qual |
| Chromium   | 32                 | 1.5 | 24.98                    | 5.956       | 105                                     | 75       | 125          | 4.87  | 20       |      |
| Cobalt     | 28                 | 1.5 | 24.98                    | 4.075       | 96.5                                    | 75       | 125          | 2.12  | 20       |      |
| Lead       | 26                 | 1.3 | 24.98                    | 3.120       | 92.3                                    | 75       | 125          | 1.22  | 20       |      |
| Nickel     | 29                 | 2.5 | 24.98                    | 4.818       | 96.9                                    | 75       | 125          | 1.36  | 20       |      |
| Selenium   | 20                 | 13  | 24.98                    | 0           | 78.7                                    | 75       | 125          | 0.233 | 20       |      |
| Silver     | 5.0                | 1.3 | 4.995                    | 0           | 99.2                                    | 75       | 125          | 1.49  | 20       |      |
| Vanadium   | 46                 | 13  | 24.98                    | 21.58       | 98.0                                    | 75       | 125          | 2.96  | 20       |      |
| Zinc       | 38                 | 13  | 24.98                    | 11.91       | 105                                     | 75       | 125          | 2.99  | 20       |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |        |                |            |             |                                      |          |           |      |          |      |
|-------------------------------|--------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 5ml rb | SampType:      | MBLK       | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBS    | Batch ID:      | R6402      | RunNo:      | 6402                                 |          |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 10/21/2012 | SeqNo:      | 184129                               | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0            |            |             |                                      |          |           |      |          |      |
| Surr: BFB                     | 480    |                | 500.0      |             | 95.0                                 | 70       | 130       |      |          |      |

|                               |               |                |            |             |                                      |          |           |      |          |      |
|-------------------------------|---------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5ug gro lcs | SampType:      | LCS        | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSS          | Batch ID:      | R6402      | RunNo:      | 6402                                 |          |           |      |          |      |
| Prep Date:                    |               | Analysis Date: | 10/21/2012 | SeqNo:      | 184130                               | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result        | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23            | 5.0            | 25.00      | 0           | 92.2                                 | 74.6     | 137       |      |          |      |
| Surr: BFB                     | 480           |                | 500.0      |             | 95.9                                 | 70       | 130       |      |          |      |

|                               |                    |                |            |             |                                      |          |           |      |          |      |
|-------------------------------|--------------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 1210692-001bms     | SampType:      | MS         | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID:                    | SWMU 1-20 (0-0.5') | Batch ID:      | R6402      | RunNo:      | 6402                                 |          |           |      |          |      |
| Prep Date:                    |                    | Analysis Date: | 10/21/2012 | SeqNo:      | 184148                               | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result             | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 19                 | 5.0            | 19.34      | 2.932       | 82.1                                 | 50.3     | 148       |      |          |      |
| Surr: BFB                     | 350                |                | 386.8      |             | 91.5                                 | 70       | 130       |      |          |      |

|            |        |                |            |             |                                      |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 5ml-rb | SampType:      | MBLK       | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID: | PBS    | Batch ID:      | R6485      | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/24/2012 | SeqNo:      | 186673                               | Units:   | %REC      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB  | 450    |                | 500.0      |             | 89.4                                 | 70       | 130       |      |          |      |

|            |               |                |            |             |                                      |          |           |      |          |      |
|------------|---------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 2.5ug gro lcs | SampType:      | LCS        | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID: | LCSS          | Batch ID:      | R6485      | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date: |               | Analysis Date: | 10/24/2012 | SeqNo:      | 186676                               | Units:   | %REC      |      |          |      |
| Analyte    | Result        | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB  | 470           |                | 500.0      |             | 93.0                                 | 70       | 130       |      |          |      |

|            |                 |                |            |             |                                      |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210910-005A MS | SampType:      | MS         | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | R6485      | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date: |                 | Analysis Date: | 10/25/2012 | SeqNo:      | 186678                               | Units:   | %REC      |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB  | 340             |                | 364.4      |             | 94.5                                 | 70       | 130       |      |          |      |

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B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                  |                |            |             |                                      |          |           |      |          |      |
|------------|------------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210910-005A MSD | SampType:      | MSD        | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID: | BatchQC          | Batch ID:      | R6485      | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date: |                  | Analysis Date: | 10/25/2012 | SeqNo:      | 186679                               | Units:   | %REC      |      |          |      |
| Analyte    | Result           | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB  | 310              |                | 364.4      |             | 85.8                                 | 70       | 130       | 0    | 0        |      |

|                               |            |                |            |             |                                      |          |           |      |          |      |
|-------------------------------|------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | mb-4362    | SampType:      | MBLK       | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBS        | Batch ID:      | 4362       | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date:                    | 10/17/2012 | Analysis Date: | 10/24/2012 | SeqNo:      | 186691                               | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result     | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0            |            |             |                                      |          |           |      |          |      |
| Surr: BFB                     | 460        |                | 500.0      |             | 92.1                                 | 70       | 130       |      |          |      |

|                               |            |                |            |             |                                      |          |           |      |          |      |
|-------------------------------|------------|----------------|------------|-------------|--------------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | LCS-4362   | SampType:      | LCS        | TestCode:   | EPA Method 8015B Mod: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSS       | Batch ID:      | 4362       | RunNo:      | 6485                                 |          |           |      |          |      |
| Prep Date:                    | 10/17/2012 | Analysis Date: | 10/24/2012 | SeqNo:      | 186692                               | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result     | PQL            | SPK value  | SPK Ref Val | %REC                                 | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23         | 5.0            | 25.00      | 0           | 90.4                                 | 74.6     | 137       |      |          |      |
| Surr: BFB                     | 450        |                | 500.0      |             | 89.2                                 | 70       | 130       |      |          |      |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210692

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |                                  |       |           |                                                   |      |                    |           |      |          |      |
|-------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>b6</b>           | SampType: <b>MBLK</b>            |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b>         | Batch ID: <b>R6394</b>           |       |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>10/20/2012</b> |       |           | SeqNo: <b>184074</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                       | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                               | 0.050 |           |                                                   |      |                    |           |      |          |      |
| Surr: BFB                     | 9.6                              |       | 10.00     |                                                   | 95.8 | 70                 | 130       |      |          |      |

|                                |                                  |       |           |                                                   |      |                    |           |      |          |      |
|--------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>2.5ug gro lcs</b> | SampType: <b>LCS</b>             |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSW</b>         | Batch ID: <b>R6394</b>           |       |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>10/19/2012</b> |       |           | SeqNo: <b>184077</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                        | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 0.43                             | 0.050 | 0.5000    | 0                                                 | 86.2 | 85                 | 115       |      |          |      |
| Surr: BFB                      | 10                               |       | 10.00     |                                                   | 99.9 | 70                 | 130       |      |          |      |

|                                 |                                  |      |           |                                                   |      |                    |           |      |          |      |
|---------------------------------|----------------------------------|------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210660-001ams</b> | SampType: <b>MS</b>              |      |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6394</b>           |      |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/20/2012</b> |      |           | SeqNo: <b>184078</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                         | Result                           | PQL  | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)   | 4.0                              | 0.25 | 2.500     | 1.915                                             | 82.1 | 70                 | 130       |      |          |      |
| Surr: BFB                       | 46                               |      | 50.00     |                                                   | 91.6 | 70                 | 130       |      |          |      |

|                                  |                                  |      |           |                                                   |      |                    |           |      |          |      |
|----------------------------------|----------------------------------|------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210660-001amsd</b> | SampType: <b>MSD</b>             |      |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>        | Batch ID: <b>R6394</b>           |      |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                       | Analysis Date: <b>10/20/2012</b> |      |           | SeqNo: <b>184079</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                          | Result                           | PQL  | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)    | 3.8                              | 0.25 | 2.500     | 1.915                                             | 76.4 | 70                 | 130       | 3.70 | 20       |      |
| Surr: BFB                        | 51                               |      | 50.00     |                                                   | 102  | 70                 | 130       | 0    | 0        |      |

|                               |                                  |       |           |                                                   |      |                    |           |      |          |      |
|-------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>5ml rb</b>       | SampType: <b>MBLK</b>            |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b>         | Batch ID: <b>R6402</b>           |       |           | RunNo: <b>6402</b>                                |      |                    |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>10/21/2012</b> |       |           | SeqNo: <b>184122</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                       | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                               | 0.050 |           |                                                   |      |                    |           |      |          |      |
| Surr: BFB                     | 9.5                              |       | 10.00     |                                                   | 95.0 | 70                 | 130       |      |          |      |

|                                |                                  |       |           |                                                   |      |                    |           |      |          |      |
|--------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>2.5ug gro lcs</b> | SampType: <b>LCS</b>             |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSW</b>         | Batch ID: <b>R6402</b>           |       |           | RunNo: <b>6402</b>                                |      |                    |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>10/21/2012</b> |       |           | SeqNo: <b>184125</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                        | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 0.46                             | 0.050 | 0.5000    | 0                                                 | 92.2 | 85                 | 115       |      |          |      |
| Surr: BFB                      | 9.6                              |       | 10.00     |                                                   | 95.9 | 70                 | 130       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

## Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1210692

Received by/date: AF 10/13/12

Logged By: Michelle Garcia 10/13/2012 8:30:00 AM *Michelle Garcia*

Completed By: Michelle Garcia 10/15/2012 9:55:26 AM *Michelle Garcia*

Reviewed By: *[Signature]* 10/15/12

### **Chain of Custody**

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

**Log In**

- |                                                                                                |     |                                     |    |                                     |              |                          |
|------------------------------------------------------------------------------------------------|-----|-------------------------------------|----|-------------------------------------|--------------|--------------------------|
| 4. Coolers are present? (see 19. for cooler specific information)                              | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA           | <input type="checkbox"/> |
| 5. Was an attempt made to cool the samples?                                                    | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA           | <input type="checkbox"/> |
| 6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to $6.0^{\circ}\text{C}$ | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | NA           | <input type="checkbox"/> |
| 7. Sample(s) in proper container(s)?                                                           | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 8. Sufficient sample volume for indicated test(s)?                                             | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 9. Are samples (except VOA and ONG) properly preserved?                                        | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 10. Was preservative added to bottles?                                                         | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> | NA           | <input type="checkbox"/> |
| 11. VOA vials have zero headspace?                                                             | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | No VOA Vials | <input type="checkbox"/> |
| 12. Were any sample containers received broken?                                                | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |              |                          |
| 13. Does paperwork match bottle labels?<br>(Note discrepancies on chain of custody)            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 14. Are matrices correctly identified on Chain of Custody?                                     | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 15. Is it clear what analyses were requested?                                                  | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
| 16. Were all holding times able to be met?<br>(If no, notify customer for authorization.)      | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |              |                          |
- # of preserved bottles checked for pH:

Adjusted pH:

Check for:

# of preserved bottles checked for pH: 33  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: [Signature]

## Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |  |       |                                                                                                                               |
|----------------------|--|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     |  | Date: |                                                                                                                               |
| By Whom:             |  | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           |  |       |                                                                                                                               |
| Client Instructions: |  |       |                                                                                                                               |

18. Additional remarks:

## 19. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 2.1     | Good      | Not Present |         |           |           |















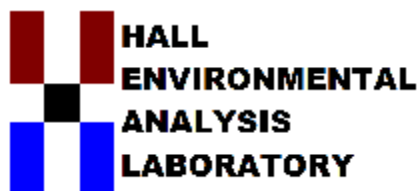






| Rpt                                 | T | Analyte              | Units | Synonym | MDL     | LOD | LOQ |
|-------------------------------------|---|----------------------|-------|---------|---------|-----|-----|
| <input type="checkbox"/>            | A | Aluminum             | mg/Kg |         | 0.4481  | 0   |     |
| <input checked="" type="checkbox"/> | A | Antimony             | mg/Kg |         | 0.629   | 0   |     |
| <input checked="" type="checkbox"/> | A | Arsenic              | mg/Kg |         | 0.6263  | 0   |     |
| <input checked="" type="checkbox"/> | A | Barium               | mg/Kg |         | 0.0609  | 0   |     |
| <input checked="" type="checkbox"/> | A | Beryllium            | mg/Kg |         | 0.0093  | 0   |     |
| <input type="checkbox"/>            | A | Boron                | mg/Kg |         | 0.0826  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cadmium              | mg/Kg |         | 0.0271  | 0   |     |
| <input type="checkbox"/>            | A | Calcium              | mg/Kg |         | 6.9713  | 0   |     |
| <input checked="" type="checkbox"/> | A | Chromium             | mg/Kg |         | 0.1184  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cobalt               | mg/Kg |         | 0.0689  | 0   |     |
| <input type="checkbox"/>            | A | Copper               | mg/Kg |         | 0.2323  | 0   |     |
| <input checked="" type="checkbox"/> | A | Iron                 | mg/Kg |         | 0.7476  | 0   |     |
| <input checked="" type="checkbox"/> | A | Lead                 | mg/Kg |         | 0.2194  | 0   |     |
| <input type="checkbox"/>            | A | Magnesium            | mg/Kg |         | 0.4651  | 0   |     |
| <input checked="" type="checkbox"/> | A | Manganese            | mg/Kg |         | 0.0212  | 0   |     |
| <input type="checkbox"/>            | A | Molybdenum           | mg/Kg |         | 0.1423  | 0   |     |
| <input checked="" type="checkbox"/> | A | Nickel               | mg/Kg |         | 0.1668  | 0   |     |
| <input type="checkbox"/>            | A | Potassium            | mg/Kg |         | 17.3925 | 0   |     |
| <input checked="" type="checkbox"/> | A | Selenium             | mg/Kg |         | 1.4025  | 0   |     |
| <input checked="" type="checkbox"/> | A | Silver               | mg/Kg |         | 0.0354  | 0   |     |
| <input type="checkbox"/>            | A | Sodium               | mg/Kg |         | 8.4278  | 0   |     |
| <input type="checkbox"/>            | A | Thallium             | mg/Kg |         | 1.1557  | 0   |     |
| <input type="checkbox"/>            | A | Tin                  | mg/Kg |         | 0.8261  | 0   |     |
| <input type="checkbox"/>            | A | Titanium             | mg/Kg |         | 0.0342  | 0   |     |
| <input type="checkbox"/>            | A | Uranium              | mg/Kg |         | 0.7296  | 0   |     |
| <input checked="" type="checkbox"/> | A | Vanadium             | mg/Kg |         | 0.0565  | 0   |     |
| <input checked="" type="checkbox"/> | A | Zinc                 | mg/Kg |         | 1.0066  | 0   |     |
| <input type="checkbox"/>            | I | Yttrium              | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | I | Yttrium Radial       | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Uranium-confirmation | mg/Kg |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Silicon              | mg/Kg |         | 0       | 0   |     |

+ Hg  
+ Cu



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 28, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210811

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 18 sample(s) on 10/17/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 10:55:00 AM

**Lab ID:** 1210811-001

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/19/2012 7:02:56 PM  |
| Motor Oil Range Organics (MRO)                 | 280    | 50       |      | mg/Kg | 1   | 10/19/2012 7:02:56 PM  |
| Surr: DNOP                                     | 99.5   | 77.6-140 |      | %REC  | 1   | 10/19/2012 7:02:56 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 12:12:24 AM |
| Surr: BFB                                      | 92.8   | 84-116   |      | %REC  | 1   | 10/23/2012 12:12:24 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.18   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:43:45 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Barium                                         | 620    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:25:22 PM   |
| Beryllium                                      | 0.71   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Chromium                                       | 24     | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Cobalt                                         | 5.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Iron                                           | 12000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:27:50 PM   |
| Lead                                           | 7.0    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Manganese                                      | 600    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:25:22 PM   |
| Nickel                                         | 15     | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Vanadium                                       | 21     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| Zinc                                           | 53     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:39:08 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/21/2012 11:36:12 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 10:55:00 AM

**Lab ID:** 1210811-001

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|-----|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 10:55:00 AM

**Lab ID:** 1210811-001

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Nitroaniline                         | ND      | 4.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Nitrobenzene                           | ND      | 5.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/21/2012 11:36:12 PM |
| Surr: 2,4,6-Tribromophenol             | 113     | 21.3-145 |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| Surr: 2-Fluorobiphenyl                 | 105     | 20-131   |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| Surr: 2-Fluorophenol                   | 87.6    | 11.9-130 |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| Surr: 4-Terphenyl-d14                  | 129     | 25.1-149 |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| Surr: Nitrobenzene-d5                  | 97.8    | 25.6-137 |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| Surr: Phenol-d5                        | 95.1    | 20.3-132 |      | %REC  | 1  | 10/21/2012 11:36:12 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00139 | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Toluene                                | 0.00215 | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Ethylbenzene                           | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Xylenes, Total                         | ND      | 0.00153  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Naphthalene                            | ND      | 0.00153  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1-Methylnaphthalene                    | ND      | 0.00306  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 2-Methylnaphthalene                    | ND      | 0.00306  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Acetone                                | 0.0395  | 0.00766  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Bromobenzene                           | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Bromodichloromethane                   | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Bromoform                              | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Bromomethane                           | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 2-Butanone                             | ND      | 0.00766  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Carbon tetrachloride                   | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Chlorobenzene                          | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Chloroethane                           | ND      | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 10:55:00 AM

**Lab ID:** 1210811-001

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Chloromethane                          | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 2-Chlorotoluene                        | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Carbon disulfide                       | ND     | 0.00766  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 4-Chlorotoluene                        | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| cis-1,2-DCE                            | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| cis-1,3-Dichloropropene                | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Dibromochloromethane                   | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Dibromomethane                         | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Dichlorodifluoromethane                | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1-Dichloroethane                     | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1-Dichloroethene                     | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2-Dichloropropane                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,3-Dichloropropane                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 2,2-Dichloropropane                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1-Dichloropropene                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Hexachlorobutadiene                    | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Isopropylbenzene                       | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 4-Isopropyltoluene                     | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Methylene chloride                     | ND     | 0.00230  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| n-Butylbenzene                         | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 2-Hexanone                             | ND     | 0.00766  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| n-Propylbenzene                        | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| sec-Butylbenzene                       | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Styrene                                | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 4-Methyl-2-pentanone                   | ND     | 0.00766  |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| tert-Butylbenzene                      | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Tetrachloroethene (PCE)                | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| trans-1,2-DCE                          | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| trans-1,3-Dichloropropene              | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1,1-Trichloroethane                  | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| 1,1,2-Trichloroethane                  | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Trichloroethene (TCE)                  | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Trichlorofluoromethane                 | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 10:55:00 AM

**Lab ID:** 1210811-001

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Vinyl chloride                         | ND     | 0.000766 |      | mg/Kg | 1  | 10/18/2012 12:09:33 AM |
| Surr: 1,2-Dichloroethane-d4            | 99.3   | 70-130   |      | %REC  | 1  | 10/18/2012 12:09:33 AM |
| Surr: 4-Bromofluorobenzene             | 100    | 70-130   |      | %REC  | 1  | 10/18/2012 12:09:33 AM |
| Surr: Dibromofluoromethane             | 117    | 70-130   |      | %REC  | 1  | 10/18/2012 12:09:33 AM |
| Surr: Toluene-d8                       | 94.5   | 70-130   |      | %REC  | 1  | 10/18/2012 12:09:33 AM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:05:00 AM

**Lab ID:** 1210811-002

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/18/2012 11:01:44 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/18/2012 11:01:44 AM |
| Surr: DNOP                                     | 102    | 77.6-140 |      | %REC  | 1   | 10/18/2012 11:01:44 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 12:41:05 AM |
| Surr: BFB                                      | 92.5   | 84-116   |      | %REC  | 1   | 10/23/2012 12:41:05 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 5:45:32 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Barium                                         | 200    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:34:47 PM   |
| Beryllium                                      | 0.84   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Chromium                                       | 8.7    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Cobalt                                         | 4.3    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Iron                                           | 12000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:37:14 PM   |
| Lead                                           | 2.7    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Manganese                                      | 300    | 1.0      |      | mg/Kg | 10  | 11/2/2012 3:34:47 PM   |
| Nickel                                         | 7.1    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Vanadium                                       | 16     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| Zinc                                           | 14     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:41:39 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 12:05:27 AM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:05:00 AM

**Lab ID:** 1210811-002

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:05:00 AM

**Lab ID:** 1210811-002

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 12:05:27 AM |
| Surr: 2,4,6-Tribromophenol             | 84.6    | 21.3-145 |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| Surr: 2-Fluorobiphenyl                 | 89.0    | 20-131   |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| Surr: 2-Fluorophenol                   | 78.4    | 11.9-130 |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| Surr: 4-Terphenyl-d14                  | 72.6    | 25.1-149 |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| Surr: Nitrobenzene-d5                  | 96.4    | 25.6-137 |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| Surr: Phenol-d5                        | 84.1    | 20.3-132 |      | %REC  | 1  | 10/22/2012 12:05:27 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00193 | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Toluene                                | 0.00164 | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Ethylbenzene                           | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Xylenes, Total                         | ND      | 0.00154  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Naphthalene                            | ND      | 0.00154  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00308  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00308  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Acetone                                | 0.0326  | 0.00769  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Bromobenzene                           | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Bromodichloromethane                   | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Bromoform                              | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Bromomethane                           | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| 2-Butanone                             | ND      | 0.00769  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Carbon tetrachloride                   | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Chlorobenzene                          | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |
| Chloroethane                           | ND      | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:05:00 AM

**Lab ID:** 1210811-002

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Chloromethane                          | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 2-Chlorotoluene                        | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Carbon disulfide                       | ND     | 0.00769  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 4-Chlorotoluene                        | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| cis-1,2-DCE                            | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Dibromochloromethane                   | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Dibromomethane                         | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Dichlorodifluoromethane                | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1-Dichloroethane                     | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1-Dichloroethene                     | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,2-Dichloropropane                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,3-Dichloropropane                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 2,2-Dichloropropane                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1-Dichloropropene                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Hexachlorobutadiene                    | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Isopropylbenzene                       | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 4-Isopropyltoluene                     | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Methylene chloride                     | ND     | 0.00231  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| n-Butylbenzene                         | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 2-Hexanone                             | ND     | 0.00769  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| n-Propylbenzene                        | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| sec-Butylbenzene                       | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Styrene                                | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00769  |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| tert-Butylbenzene                      | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| trans-1,2-DCE                          | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Trichloroethene (TCE)                  | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Trichlorofluoromethane                 | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-9 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:05:00 AM

**Lab ID:** 1210811-002

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Vinyl chloride                         | ND     | 0.000769 |      | mg/Kg | 1  | 10/17/2012 3:26:38 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.1   | 70-130   |      | %REC  | 1  | 10/17/2012 3:26:38 PM |
| Surr: 4-Bromofluorobenzene             | 102    | 70-130   |      | %REC  | 1  | 10/17/2012 3:26:38 PM |
| Surr: Dibromofluoromethane             | 98.4   | 70-130   |      | %REC  | 1  | 10/17/2012 3:26:38 PM |
| Surr: Toluene-d8                       | 94.1   | 70-130   |      | %REC  | 1  | 10/17/2012 3:26:38 PM |

### Qualifiers:

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E Value above quantitation range  
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B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:20:00 AM

**Lab ID:** 1210811-003

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 45     | 9.8      |      | mg/Kg | 1   | 10/19/2012 8:07:52 PM |
| Motor Oil Range Organics (MRO)                 | 230    | 49       |      | mg/Kg | 1   | 10/19/2012 8:07:52 PM |
| Surr: DNOP                                     | 105    | 77.6-140 |      | %REC  | 1   | 10/19/2012 8:07:52 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 1:09:44 AM |
| Surr: BFB                                      | 92.9   | 84-116   |      | %REC  | 1   | 10/23/2012 1:09:44 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.20   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:47:19 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Barium                                         | 590    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:40:07 PM  |
| Beryllium                                      | 0.65   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Chromium                                       | 24     | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Cobalt                                         | 5.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 3:42:33 PM  |
| Lead                                           | 9.1    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Manganese                                      | 560    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:40:07 PM  |
| Nickel                                         | 14     | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Vanadium                                       | 24     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| Zinc                                           | 70     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:44:04 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 1:33:01 AM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:20:00 AM

**Lab ID:** 1210811-003

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2-Chloronaphthalene                    | ND     | 1.2 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Di-n-octyl phthalate                   | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.2 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:20:00 AM

**Lab ID:** 1210811-003

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 4-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Nitrobenzene                           | ND      | 2.5      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 2-Nitrophenol                          | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 4-Nitrophenol                          | ND      | 1.2      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Pentachlorophenol                      | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Phenanthrene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Phenol                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Pyrene                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Pyridine                               | ND      | 2.5      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 1:33:01 AM  |
| Surr: 2,4,6-Tribromophenol             | 89.3    | 21.3-145 |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| Surr: 2-Fluorobiphenyl                 | 94.2    | 20-131   |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| Surr: 2-Fluorophenol                   | 63.5    | 11.9-130 |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| Surr: 4-Terphenyl-d14                  | 97.9    | 25.1-149 |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| Surr: Nitrobenzene-d5                  | 80.1    | 25.6-137 |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| Surr: Phenol-d5                        | 76.9    | 20.3-132 |      | %REC  | 1  | 10/22/2012 1:33:01 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00176 | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Toluene                                | 0.00562 | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Ethylbenzene                           | 0.00322 | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Xylenes, Total                         | 0.0189  | 0.00178  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2,4-Trimethylbenzene                 | 0.00282 | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,3,5-Trimethylbenzene                 | 0.00105 | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Naphthalene                            | ND      | 0.00178  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1-Methylnaphthalene                    | ND      | 0.00356  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 2-Methylnaphthalene                    | ND      | 0.00356  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Acetone                                | 0.146   | 0.00890  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Bromobenzene                           | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Bromodichloromethane                   | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Bromoform                              | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Bromomethane                           | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 2-Butanone                             | ND      | 0.00890  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Carbon tetrachloride                   | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Chlorobenzene                          | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Chloroethane                           | ND      | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:20:00 AM

**Lab ID:** 1210811-003

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Chloromethane                          | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 2-Chlorotoluene                        | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Carbon disulfide                       | ND     | 0.00890  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 4-Chlorotoluene                        | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| cis-1,2-DCE                            | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Dibromochloromethane                   | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Dibromomethane                         | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Dichlorodifluoromethane                | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1-Dichloroethane                     | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1-Dichloroethene                     | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2-Dichloropropane                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,3-Dichloropropane                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 2,2-Dichloropropane                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1-Dichloropropene                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Hexachlorobutadiene                    | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Isopropylbenzene                       | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 4-Isopropyltoluene                     | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Methylene chloride                     | ND     | 0.00267  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| n-Butylbenzene                         | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 2-Hexanone                             | ND     | 0.00890  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| n-Propylbenzene                        | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| sec-Butylbenzene                       | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Styrene                                | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00890  |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| tert-Butylbenzene                      | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| trans-1,2-DCE                          | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Trichloroethene (TCE)                  | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Trichlorofluoromethane                 | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:20:00 AM

**Lab ID:** 1210811-003

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Vinyl chloride                         | ND     | 0.000890 |      | mg/Kg | 1  | 10/18/2012 12:47:54 PM |
| Surr: 1,2-Dichloroethane-d4            | 98.9   | 70-130   |      | %REC  | 1  | 10/18/2012 12:47:54 PM |
| Surr: 4-Bromofluorobenzene             | 130    | 70-130   | S    | %REC  | 1  | 10/18/2012 12:47:54 PM |
| Surr: Dibromofluoromethane             | 108    | 70-130   |      | %REC  | 1  | 10/18/2012 12:47:54 PM |
| Surr: Toluene-d8                       | 93.5   | 70-130   |      | %REC  | 1  | 10/18/2012 12:47:54 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:30:00 AM

**Lab ID:** 1210811-004

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 42     | 9.8      |      | mg/Kg | 1   | 10/19/2012 8:29:31 PM |
| Motor Oil Range Organics (MRO)                 | 210    | 49       |      | mg/Kg | 1   | 10/19/2012 8:29:31 PM |
| Surr: DNOP                                     | 100    | 77.6-140 |      | %REC  | 1   | 10/19/2012 8:29:31 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 1:38:24 AM |
| Surr: BFB                                      | 93.1   | 84-116   |      | %REC  | 1   | 10/23/2012 1:38:24 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.091  | 0.033    |      | mg/kg | 1   | 10/23/2012 5:49:04 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Barium                                         | 580    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:45:28 PM  |
| Beryllium                                      | 0.54   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Chromium                                       | 15     | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Cobalt                                         | 4.2    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Iron                                           | 7400   | 500      |      | mg/Kg | 500 | 11/2/2012 3:47:54 PM  |
| Lead                                           | 3.0    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Manganese                                      | 790    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:45:28 PM  |
| Nickel                                         | 11     | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Vanadium                                       | 22     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| Zinc                                           | 26     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:46:49 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 2:02:14 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:30:00 AM

**Lab ID:** 1210811-004

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:30:00 AM

**Lab ID:** 1210811-004

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|----------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Nitroaniline                         | ND       | 4.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Nitrobenzene                           | ND       | 5.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2-Nitrophenol                          | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 4-Nitrophenol                          | ND       | 2.5      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Pentachlorophenol                      | ND       | 4.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Phenanthrene                           | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Phenol                                 | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Pyrene                                 | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Pyridine                               | ND       | 5.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 1,2,4-Trichlorobenzene                 | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4,5-Trichlorophenol                  | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| 2,4,6-Trichlorophenol                  | ND       | 2.0      |      | mg/Kg | 1  | 10/22/2012 2:02:14 AM |
| Surr: 2,4,6-Tribromophenol             | 106      | 21.3-145 |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| Surr: 2-Fluorobiphenyl                 | 101      | 20-131   |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| Surr: 2-Fluorophenol                   | 90.3     | 11.9-130 |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| Surr: 4-Terphenyl-d14                  | 128      | 25.1-149 |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| Surr: Nitrobenzene-d5                  | 96.2     | 25.6-137 |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| Surr: Phenol-d5                        | 95.3     | 20.3-132 |      | %REC  | 1  | 10/22/2012 2:02:14 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.000934 | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Toluene                                | 0.00346  | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Ethylbenzene                           | 0.000992 | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Xylenes, Total                         | 0.00384  | 0.00165  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Methyl tert-butyl ether (MTBE)         | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2,4-Trimethylbenzene                 | 0.00143  | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,3,5-Trimethylbenzene                 | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Naphthalene                            | ND       | 0.00165  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1-Methylnaphthalene                    | ND       | 0.00331  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 2-Methylnaphthalene                    | ND       | 0.00331  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Acetone                                | 0.0464   | 0.00827  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Bromobenzene                           | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Bromodichloromethane                   | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Bromoform                              | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Bromomethane                           | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 2-Butanone                             | ND       | 0.00827  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Carbon tetrachloride                   | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Chlorobenzene                          | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Chloroethane                           | ND       | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:30:00 AM

**Lab ID:** 1210811-004

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Chloromethane                          | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 2-Chlorotoluene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Carbon disulfide                       | ND     | 0.00827  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 4-Chlorotoluene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| cis-1,2-DCE                            | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Dibromochloromethane                   | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Dibromomethane                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Dichlorodifluoromethane                | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1-Dichloroethane                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1-Dichloroethene                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,3-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 2,2-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1-Dichloropropene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Hexachlorobutadiene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Isopropylbenzene                       | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 4-Isopropyltoluene                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Methylene chloride                     | ND     | 0.00248  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| n-Butylbenzene                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 2-Hexanone                             | ND     | 0.00827  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| n-Propylbenzene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| sec-Butylbenzene                       | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Styrene                                | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00827  |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| tert-Butylbenzene                      | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| trans-1,2-DCE                          | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Trichloroethene (TCE)                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Trichlorofluoromethane                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-10 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 11:30:00 AM

**Lab ID:** 1210811-004

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Vinyl chloride                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/17/2012 4:28:16 PM |
| Surr: 1,2-Dichloroethane-d4            | 100    | 70-130   |      | %REC  | 1  | 10/17/2012 4:28:16 PM |
| Surr: 4-Bromofluorobenzene             | 104    | 70-130   |      | %REC  | 1  | 10/17/2012 4:28:16 PM |
| Surr: Dibromofluoromethane             | 117    | 70-130   |      | %REC  | 1  | 10/17/2012 4:28:16 PM |
| Surr: Toluene-d8                       | 107    | 70-130   |      | %REC  | 1  | 10/17/2012 4:28:16 PM |

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:05:00 PM

**Lab ID:** 1210811-005

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 87     | 9.8      |      | mg/Kg | 1   | 10/19/2012 9:02:58 AM |
| Motor Oil Range Organics (MRO)                 | 86     | 49       |      | mg/Kg | 1   | 10/19/2012 9:02:58 AM |
| Surr: DNOP                                     | 103    | 77.6-140 |      | %REC  | 1   | 10/19/2012 9:02:58 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 10       |      | mg/Kg | 2   | 10/23/2012 2:07:11 AM |
| Surr: BFB                                      | 89.6   | 84-116   |      | %REC  | 2   | 10/23/2012 2:07:11 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.84   | 0.16     |      | mg/kg | 5   | 10/23/2012 8:00:33 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Barium                                         | 510    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:50:46 PM  |
| Beryllium                                      | 0.77   | 0.30     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Chromium                                       | 15     | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Cobalt                                         | 5.4    | 0.60     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:02:06 PM  |
| Lead                                           | 3.5    | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Manganese                                      | 620    | 2.0      |      | mg/Kg | 20  | 11/2/2012 3:50:46 PM  |
| Nickel                                         | 8.8    | 1.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Vanadium                                       | 25     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| Zinc                                           | 39     | 5.0      |      | mg/Kg | 2   | 11/2/2012 10:49:22 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 2:31:21 AM |

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:05:00 PM

**Lab ID:** 1210811-005

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:05:00 PM

**Lab ID:** 1210811-005

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 2:31:21 AM |
| Surr: 2,4,6-Tribromophenol             | 97.9    | 21.3-145 |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| Surr: 2-Fluorobiphenyl                 | 90.9    | 20-131   |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| Surr: 2-Fluorophenol                   | 81.9    | 11.9-130 |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| Surr: 4-Terphenyl-d14                  | 91.0    | 25.1-149 |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| Surr: Nitrobenzene-d5                  | 95.4    | 25.6-137 |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| Surr: Phenol-d5                        | 84.2    | 20.3-132 |      | %REC  | 1  | 10/22/2012 2:31:21 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00207 | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Toluene                                | 0.00414 | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Ethylbenzene                           | 0.00933 | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Xylenes, Total                         | 0.0565  | 0.00195  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2,4-Trimethylbenzene                 | 0.00219 | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Naphthalene                            | ND      | 0.00195  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1-Methylnaphthalene                    | ND      | 0.00390  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 2-Methylnaphthalene                    | ND      | 0.00390  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Acetone                                | 0.329   | 0.00976  | E    | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Bromobenzene                           | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Bromodichloromethane                   | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Bromoform                              | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Bromomethane                           | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 2-Butanone                             | 0.0102  | 0.00976  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Carbon tetrachloride                   | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Chlorobenzene                          | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Chloroethane                           | ND      | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:05:00 PM

**Lab ID:** 1210811-005

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Chloromethane                          | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 2-Chlorotoluene                        | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Carbon disulfide                       | ND     | 0.00976  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 4-Chlorotoluene                        | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| cis-1,2-DCE                            | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Dibromochloromethane                   | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Dibromomethane                         | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Dichlorodifluoromethane                | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1-Dichloroethane                     | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1-Dichloroethene                     | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2-Dichloropropane                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,3-Dichloropropane                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 2,2-Dichloropropane                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1-Dichloropropene                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Hexachlorobutadiene                    | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Isopropylbenzene                       | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 4-Isopropyltoluene                     | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Methylene chloride                     | ND     | 0.00293  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| n-Butylbenzene                         | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 2-Hexanone                             | ND     | 0.00976  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| n-Propylbenzene                        | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| sec-Butylbenzene                       | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Styrene                                | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00976  |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| tert-Butylbenzene                      | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| trans-1,2-DCE                          | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Trichloroethene (TCE)                  | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Trichlorofluoromethane                 | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:05:00 PM

**Lab ID:** 1210811-005

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Vinyl chloride                         | ND     | 0.000976 |      | mg/Kg | 1  | 10/17/2012 4:59:03 PM |
| Surr: 1,2-Dichloroethane-d4            | 95.2   | 70-130   |      | %REC  | 1  | 10/17/2012 4:59:03 PM |
| Surr: 4-Bromofluorobenzene             | 106    | 70-130   |      | %REC  | 1  | 10/17/2012 4:59:03 PM |
| Surr: Dibromofluoromethane             | 113    | 70-130   |      | %REC  | 1  | 10/17/2012 4:59:03 PM |
| Surr: Toluene-d8                       | 99.1   | 70-130   |      | %REC  | 1  | 10/17/2012 4:59:03 PM |

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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:20:00 PM

**Lab ID:** 1210811-006

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 120    | 10       |      | mg/Kg | 1   | 10/19/2012 9:24:38 AM |
| Motor Oil Range Organics (MRO)                 | 120    | 51       |      | mg/Kg | 1   | 10/19/2012 9:24:38 AM |
| Surr: DNOP                                     | 103    | 77.6-140 |      | %REC  | 1   | 10/19/2012 9:24:38 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 10       |      | mg/Kg | 2   | 10/23/2012 2:35:56 AM |
| Surr: BFB                                      | 89.2   | 84-116   |      | %REC  | 2   | 10/23/2012 2:35:56 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.19   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:52:47 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Barium                                         | 590    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:05:01 PM  |
| Beryllium                                      | 0.61   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Iron                                           | 7400   | 500      |      | mg/Kg | 500 | 11/2/2012 4:09:11 PM  |
| Lead                                           | 1.4    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Manganese                                      | 400    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:05:01 PM  |
| Nickel                                         | 7.1    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| Zinc                                           | 44     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:00:53 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:00:24 AM |

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
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- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:20:00 PM

**Lab ID:** 1210811-006

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:20:00 PM

**Lab ID:** 1210811-006

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:00:24 AM |
| Surr: 2,4,6-Tribromophenol             | 89.5    | 21.3-145 |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| Surr: 2-Fluorobiphenyl                 | 87.7    | 20-131   |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| Surr: 2-Fluorophenol                   | 82.9    | 11.9-130 |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| Surr: 4-Terphenyl-d14                  | 72.3    | 25.1-149 |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| Surr: Nitrobenzene-d5                  | 95.3    | 25.6-137 |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| Surr: Phenol-d5                        | 79.9    | 20.3-132 |      | %REC  | 1  | 10/22/2012 3:00:24 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00131 | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Toluene                                | 0.00804 | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Ethylbenzene                           | 0.00229 | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Xylenes, Total                         | 0.00902 | 0.00153  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2,4-Trimethylbenzene                 | 0.00449 | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,3,5-Trimethylbenzene                 | 0.00165 | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Naphthalene                            | ND      | 0.00153  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1-Methylnaphthalene                    | ND      | 0.00307  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 2-Methylnaphthalene                    | ND      | 0.00307  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Acetone                                | 0.0686  | 0.00767  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Bromobenzene                           | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Bromodichloromethane                   | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Bromoform                              | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Bromomethane                           | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 2-Butanone                             | ND      | 0.00767  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Carbon tetrachloride                   | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Chlorobenzene                          | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Chloroethane                           | ND      | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:20:00 PM

**Lab ID:** 1210811-006

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Chloromethane                          | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 2-Chlorotoluene                        | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Carbon disulfide                       | ND     | 0.00767  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 4-Chlorotoluene                        | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| cis-1,2-DCE                            | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Dibromochloromethane                   | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Dibromomethane                         | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Dichlorodifluoromethane                | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1-Dichloroethane                     | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1-Dichloroethene                     | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2-Dichloropropane                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,3-Dichloropropane                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 2,2-Dichloropropane                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1-Dichloropropene                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Hexachlorobutadiene                    | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Isopropylbenzene                       | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 4-Isopropyltoluene                     | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Methylene chloride                     | ND     | 0.00230  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| n-Butylbenzene                         | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 2-Hexanone                             | ND     | 0.00767  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| n-Propylbenzene                        | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| sec-Butylbenzene                       | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Styrene                                | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00767  |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| tert-Butylbenzene                      | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| trans-1,2-DCE                          | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Trichloroethene (TCE)                  | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Trichlorofluoromethane                 | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-11 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 12:20:00 PM

**Lab ID:** 1210811-006

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Vinyl chloride                         | ND     | 0.000767 |      | mg/Kg | 1  | 10/17/2012 5:29:46 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.9   | 70-130   |      | %REC  | 1  | 10/17/2012 5:29:46 PM |
| Surr: 4-Bromofluorobenzene             | 114    | 70-130   |      | %REC  | 1  | 10/17/2012 5:29:46 PM |
| Surr: Dibromofluoromethane             | 115    | 70-130   |      | %REC  | 1  | 10/17/2012 5:29:46 PM |
| Surr: Toluene-d8                       | 111    | 70-130   |      | %REC  | 1  | 10/17/2012 5:29:46 PM |

### Qualifiers:

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P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 2:45:00 PM

**Lab ID:** 1210811-007

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 200    | 10       |      | mg/Kg | 1   | 10/19/2012 9:46:08 AM |
| Motor Oil Range Organics (MRO)                 | 150    | 51       |      | mg/Kg | 1   | 10/19/2012 9:46:08 AM |
| Surr: DNOP                                     | 105    | 77.6-140 |      | %REC  | 1   | 10/19/2012 9:46:08 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 10       |      | mg/Kg | 2   | 10/23/2012 3:04:40 AM |
| Surr: BFB                                      | 92.8   | 84-116   |      | %REC  | 2   | 10/23/2012 3:04:40 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.16   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:54:35 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Barium                                         | 400    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:12:04 PM  |
| Beryllium                                      | 0.95   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Chromium                                       | 15     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Cobalt                                         | 5.4    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Iron                                           | 15000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:14:29 PM  |
| Lead                                           | 1.6    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Manganese                                      | 390    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:12:04 PM  |
| Nickel                                         | 9.9    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Vanadium                                       | 24     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| Zinc                                           | 61     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:03:20 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:29:24 AM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 2:45:00 PM

**Lab ID:** 1210811-007

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Di-n-octyl phthalate                   | ND     | 0.81 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4-Dichlorophenol                     | ND     | 0.81 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4-Dinitrophenol                      | ND     | 0.81 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 2:45:00 PM

**Lab ID:** 1210811-007

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Nitroaniline                         | ND      | 0.81     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Pentachlorophenol                      | ND      | 0.81     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:29:24 AM |
| Surr: 2,4,6-Tribromophenol             | 86.0    | 21.3-145 |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| Surr: 2-Fluorobiphenyl                 | 83.6    | 20-131   |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| Surr: 2-Fluorophenol                   | 79.7    | 11.9-130 |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| Surr: 4-Terphenyl-d14                  | 73.3    | 25.1-149 |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| Surr: Nitrobenzene-d5                  | 94.3    | 25.6-137 |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| Surr: Phenol-d5                        | 78.0    | 20.3-132 |      | %REC  | 1  | 10/22/2012 3:29:24 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00232 | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Toluene                                | 0.00554 | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Ethylbenzene                           | 0.0233  | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Xylenes, Total                         | 0.186   | 0.00178  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2,4-Trimethylbenzene                 | 0.00394 | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,3,5-Trimethylbenzene                 | 0.00161 | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Naphthalene                            | ND      | 0.00178  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1-Methylnaphthalene                    | ND      | 0.00357  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 2-Methylnaphthalene                    | ND      | 0.00357  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Acetone                                | 3.23    | 0.00892  | E    | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Bromobenzene                           | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Bromodichloromethane                   | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Bromoform                              | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Bromomethane                           | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 2-Butanone                             | 0.0132  | 0.00892  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Carbon tetrachloride                   | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Chlorobenzene                          | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Chloroethane                           | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 2:45:00 PM

**Lab ID:** 1210811-007

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Chloromethane                          | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 2-Chlorotoluene                        | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Carbon disulfide                       | ND      | 0.00892  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 4-Chlorotoluene                        | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| cis-1,2-DCE                            | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| cis-1,3-Dichloropropene                | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2-Dibromo-3-chloropropane            | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Dibromochloromethane                   | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Dibromomethane                         | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2-Dichlorobenzene                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,3-Dichlorobenzene                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,4-Dichlorobenzene                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Dichlorodifluoromethane                | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1-Dichloroethane                     | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1-Dichloroethene                     | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2-Dichloropropane                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,3-Dichloropropane                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 2,2-Dichloropropane                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1-Dichloropropene                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Hexachlorobutadiene                    | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Isopropylbenzene                       | 0.00144 | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 4-Isopropyltoluene                     | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Methylene chloride                     | ND      | 0.00268  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| n-Butylbenzene                         | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 2-Hexanone                             | ND      | 0.00892  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| n-Propylbenzene                        | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| sec-Butylbenzene                       | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Styrene                                | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 4-Methyl-2-pentanone                   | ND      | 0.00892  |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| tert-Butylbenzene                      | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1,1,2-Tetrachloroethane              | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1,2,2-Tetrachloroethane              | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Tetrachloroethene (PCE)                | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| trans-1,2-DCE                          | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| trans-1,3-Dichloropropene              | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2,3-Trichlorobenzene                 | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1,1-Trichloroethane                  | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| 1,1,2-Trichloroethane                  | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Trichloroethene (TCE)                  | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Trichlorofluoromethane                 | ND      | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 2:45:00 PM

**Lab ID:** 1210811-007

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Vinyl chloride                         | ND     | 0.000892 |      | mg/Kg | 1  | 10/17/2012 6:00:30 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.4   | 70-130   |      | %REC  | 1  | 10/17/2012 6:00:30 PM |
| Surr: 4-Bromofluorobenzene             | 99.8   | 70-130   |      | %REC  | 1  | 10/17/2012 6:00:30 PM |
| Surr: Dibromofluoromethane             | 106    | 70-130   |      | %REC  | 1  | 10/17/2012 6:00:30 PM |
| Surr: Toluene-d8                       | 93.0   | 70-130   |      | %REC  | 1  | 10/17/2012 6:00:30 PM |

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:00:00 PM

**Lab ID:** 1210811-008

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | 190    | 9.6      |      | mg/Kg | 1   | 10/19/2012 10:07:43 AM |
| Motor Oil Range Organics (MRO)                 | 190    | 48       |      | mg/Kg | 1   | 10/19/2012 10:07:43 AM |
| Surr: DNOP                                     | 111    | 77.6-140 |      | %REC  | 1   | 10/19/2012 10:07:43 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 10       |      | mg/Kg | 2   | 10/23/2012 3:33:26 AM  |
| Surr: BFB                                      | 91.2   | 84-116   |      | %REC  | 2   | 10/23/2012 3:33:26 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.12   | 0.033    |      | mg/kg | 1   | 10/23/2012 5:56:22 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Barium                                         | 440    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:17:23 PM   |
| Beryllium                                      | 0.76   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Chromium                                       | 14     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Cobalt                                         | 4.9    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:19:48 PM   |
| Lead                                           | 1.6    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Manganese                                      | 460    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:17:23 PM   |
| Nickel                                         | 8.0    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Vanadium                                       | 24     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| Zinc                                           | 40     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:05:49 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 3:58:25 AM  |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:00:00 PM

**Lab ID:** 1210811-008

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:00:00 PM

**Lab ID:** 1210811-008

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 3:58:25 AM |
| Surr: 2,4,6-Tribromophenol             | 101     | 21.3-145 |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| Surr: 2-Fluorobiphenyl                 | 91.8    | 20-131   |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| Surr: 2-Fluorophenol                   | 81.6    | 11.9-130 |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| Surr: 4-Terphenyl-d14                  | 82.5    | 25.1-149 |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| Surr: Nitrobenzene-d5                  | 99.5    | 25.6-137 |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| Surr: Phenol-d5                        | 85.2    | 20.3-132 |      | %REC  | 1  | 10/22/2012 3:58:25 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00191 | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Toluene                                | 0.00470 | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Ethylbenzene                           | 0.00131 | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Xylenes, Total                         | 0.00699 | 0.00146  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2,4-Trimethylbenzene                 | 0.00382 | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,3,5-Trimethylbenzene                 | 0.00149 | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Naphthalene                            | ND      | 0.00146  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1-Methylnaphthalene                    | ND      | 0.00292  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 2-Methylnaphthalene                    | ND      | 0.00292  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Acetone                                | 0.0917  | 0.00729  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Bromobenzene                           | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Bromodichloromethane                   | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Bromoform                              | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Bromomethane                           | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 2-Butanone                             | ND      | 0.00729  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Carbon tetrachloride                   | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Chlorobenzene                          | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Chloroethane                           | ND      | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:00:00 PM

**Lab ID:** 1210811-008

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Chloromethane                          | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 2-Chlorotoluene                        | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Carbon disulfide                       | ND     | 0.00729  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 4-Chlorotoluene                        | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| cis-1,2-DCE                            | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Dibromochloromethane                   | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Dibromomethane                         | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Dichlorodifluoromethane                | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1-Dichloroethane                     | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1-Dichloroethene                     | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2-Dichloropropane                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,3-Dichloropropane                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 2,2-Dichloropropane                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1-Dichloropropene                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Hexachlorobutadiene                    | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Isopropylbenzene                       | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 4-Isopropyltoluene                     | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Methylene chloride                     | ND     | 0.00219  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| n-Butylbenzene                         | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 2-Hexanone                             | ND     | 0.00729  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| n-Propylbenzene                        | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| sec-Butylbenzene                       | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Styrene                                | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00729  |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| tert-Butylbenzene                      | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| trans-1,2-DCE                          | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Trichloroethene (TCE)                  | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Trichlorofluoromethane                 | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-12 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:00:00 PM

**Lab ID:** 1210811-008

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Vinyl chloride                         | ND     | 0.000729 |      | mg/Kg | 1  | 10/17/2012 7:02:10 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.8   | 70-130   |      | %REC  | 1  | 10/17/2012 7:02:10 PM |
| Surr: 4-Bromofluorobenzene             | 120    | 70-130   |      | %REC  | 1  | 10/17/2012 7:02:10 PM |
| Surr: Dibromofluoromethane             | 104    | 70-130   |      | %REC  | 1  | 10/17/2012 7:02:10 PM |
| Surr: Toluene-d8                       | 88.3   | 70-130   |      | %REC  | 1  | 10/17/2012 7:02:10 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:30:00 PM

**Lab ID:** 1210811-009

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 58     | 9.8      |      | mg/Kg | 1   | 10/19/2012 8:19:39 AM |
| Motor Oil Range Organics (MRO)                 | 94     | 49       |      | mg/Kg | 1   | 10/19/2012 8:19:39 AM |
| Surr: DNOP                                     | 102    | 77.6-140 |      | %REC  | 1   | 10/19/2012 8:19:39 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 4:02:08 AM |
| Surr: BFB                                      | 91.2   | 84-116   |      | %REC  | 1   | 10/23/2012 4:02:08 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.050  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:01:43 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Barium                                         | 530    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:25:06 PM  |
| Beryllium                                      | 1.0    | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Cobalt                                         | 5.4    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:27:31 PM  |
| Lead                                           | 1.9    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Manganese                                      | 300    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:22:41 PM  |
| Nickel                                         | 8.9    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Vanadium                                       | 20     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| Zinc                                           | 33     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:08:19 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 4:27:35 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:30:00 PM

**Lab ID:** 1210811-009

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | 1.5    | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:30:00 PM

**Lab ID:** 1210811-009

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:27:35 AM |
| Surr: 2,4,6-Tribromophenol             | 93.5    | 21.3-145 |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| Surr: 2-Fluorobiphenyl                 | 91.4    | 20-131   |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| Surr: 2-Fluorophenol                   | 86.9    | 11.9-130 |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| Surr: 4-Terphenyl-d14                  | 92.8    | 25.1-149 |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| Surr: Nitrobenzene-d5                  | 102     | 25.6-137 |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| Surr: Phenol-d5                        | 88.1    | 20.3-132 |      | %REC  | 1  | 10/22/2012 4:27:35 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00171 | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Toluene                                | 0.00574 | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Ethylbenzene                           | 0.00165 | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Xylenes, Total                         | 0.00542 | 0.00149  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2,4-Trimethylbenzene                 | 0.00194 | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Naphthalene                            | ND      | 0.00149  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1-Methylnaphthalene                    | ND      | 0.00298  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 2-Methylnaphthalene                    | ND      | 0.00298  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Acetone                                | 0.0471  | 0.00745  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Bromobenzene                           | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Bromodichloromethane                   | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Bromoform                              | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Bromomethane                           | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 2-Butanone                             | ND      | 0.00745  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Carbon tetrachloride                   | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Chlorobenzene                          | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Chloroethane                           | ND      | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:30:00 PM

**Lab ID:** 1210811-009

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Chloromethane                          | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 2-Chlorotoluene                        | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Carbon disulfide                       | ND     | 0.00745  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 4-Chlorotoluene                        | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| cis-1,2-DCE                            | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Dibromochloromethane                   | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Dibromomethane                         | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Dichlorodifluoromethane                | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1-Dichloroethane                     | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1-Dichloroethene                     | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2-Dichloropropane                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,3-Dichloropropane                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 2,2-Dichloropropane                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1-Dichloropropene                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Hexachlorobutadiene                    | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Isopropylbenzene                       | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 4-Isopropyltoluene                     | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Methylene chloride                     | ND     | 0.00223  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| n-Butylbenzene                         | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 2-Hexanone                             | ND     | 0.00745  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| n-Propylbenzene                        | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| sec-Butylbenzene                       | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Styrene                                | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00745  |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| tert-Butylbenzene                      | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| trans-1,2-DCE                          | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Trichloroethene (TCE)                  | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Trichlorofluoromethane                 | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:30:00 PM

**Lab ID:** 1210811-009

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Vinyl chloride                         | ND     | 0.000745 |      | mg/Kg | 1  | 10/17/2012 7:32:57 PM |
| Surr: 1,2-Dichloroethane-d4            | 101    | 70-130   |      | %REC  | 1  | 10/17/2012 7:32:57 PM |
| Surr: 4-Bromofluorobenzene             | 85.9   | 70-130   |      | %REC  | 1  | 10/17/2012 7:32:57 PM |
| Surr: Dibromofluoromethane             | 117    | 70-130   |      | %REC  | 1  | 10/17/2012 7:32:57 PM |
| Surr: Toluene-d8                       | 106    | 70-130   |      | %REC  | 1  | 10/17/2012 7:32:57 PM |

### Qualifiers:

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J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-010

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/18/2012 11:42:59 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 48       |      | mg/Kg | 1   | 10/18/2012 11:42:59 AM |
| Surr: DNOP                                     | 95.9   | 77.6-140 |      | %REC  | 1   | 10/18/2012 11:42:59 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 4:59:28 AM  |
| Surr: BFB                                      | 91.9   | 84-116   |      | %REC  | 1   | 10/23/2012 4:59:28 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:03:36 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Arsenic                                        | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Barium                                         | 360    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:45:54 PM   |
| Beryllium                                      | 0.75   | 0.75     |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Chromium                                       | 11     | 1.5      |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Cobalt                                         | 4.4    | 1.5      |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:48:20 PM   |
| Lead                                           | 4.1    | 1.3      |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Manganese                                      | 430    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:45:54 PM   |
| Nickel                                         | 7.6    | 2.5      |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Selenium                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Vanadium                                       | 19     | 13       |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| Zinc                                           | 16     | 13       |      | mg/Kg | 5   | 11/2/2012 4:43:30 PM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 4:56:48 AM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-010

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-010

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 4:56:48 AM |
| Surr: 2,4,6-Tribromophenol             | 88.5   | 21.3-145 |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| Surr: 2-Fluorobiphenyl                 | 90.7   | 20-131   |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| Surr: 2-Fluorophenol                   | 82.6   | 11.9-130 |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| Surr: 4-Terphenyl-d14                  | 74.6   | 25.1-149 |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| Surr: Nitrobenzene-d5                  | 97.6   | 25.6-137 |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| Surr: Phenol-d5                        | 89.2   | 20.3-132 |      | %REC  | 1  | 10/22/2012 4:56:48 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Toluene                                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Ethylbenzene                           | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Xylenes, Total                         | ND     | 0.00179  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Naphthalene                            | ND     | 0.00179  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1-Methylnaphthalene                    | ND     | 0.00357  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 2-Methylnaphthalene                    | ND     | 0.00357  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Acetone                                | 0.0202 | 0.00893  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Bromobenzene                           | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Bromodichloromethane                   | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Bromoform                              | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Bromomethane                           | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 2-Butanone                             | ND     | 0.00893  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Carbon tetrachloride                   | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Chlorobenzene                          | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Chloroethane                           | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-010

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Chloromethane                          | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 2-Chlorotoluene                        | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Carbon disulfide                       | ND     | 0.00893  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 4-Chlorotoluene                        | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| cis-1,2-DCE                            | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Dibromochloromethane                   | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Dibromomethane                         | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Dichlorodifluoromethane                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1-Dichloroethane                     | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1-Dichloroethene                     | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2-Dichloropropane                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,3-Dichloropropane                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 2,2-Dichloropropane                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1-Dichloropropene                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Hexachlorobutadiene                    | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Isopropylbenzene                       | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 4-Isopropyltoluene                     | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Methylene chloride                     | ND     | 0.00268  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| n-Butylbenzene                         | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 2-Hexanone                             | ND     | 0.00893  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| n-Propylbenzene                        | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| sec-Butylbenzene                       | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Styrene                                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00893  |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| tert-Butylbenzene                      | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| trans-1,2-DCE                          | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Trichloroethene (TCE)                  | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Trichlorofluoromethane                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-010

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Vinyl chloride                         | ND     | 0.000893 |      | mg/Kg | 1  | 10/17/2012 8:03:39 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.9   | 70-130   |      | %REC  | 1  | 10/17/2012 8:03:39 PM |
| Surr: 4-Bromofluorobenzene             | 84.0   | 70-130   |      | %REC  | 1  | 10/17/2012 8:03:39 PM |
| Surr: Dibromofluoromethane             | 109    | 70-130   |      | %REC  | 1  | 10/17/2012 8:03:39 PM |
| Surr: Toluene-d8                       | 104    | 70-130   |      | %REC  | 1  | 10/17/2012 8:03:39 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-011

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/18/2012 12:07:39 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/18/2012 12:07:39 PM |
| Surr: DNOP                                     | 99.2   | 77.6-140 |      | %REC  | 1   | 10/18/2012 12:07:39 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 3:56:01 PM  |
| Surr: BFB                                      | 88.0   | 84-116   |      | %REC  | 1   | 10/24/2012 3:56:01 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:05:24 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Barium                                         | 240    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:51:10 PM   |
| Beryllium                                      | 0.81   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Cobalt                                         | 5.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Iron                                           | 15000  | 500      |      | mg/Kg | 500 | 11/2/2012 4:53:33 PM   |
| Lead                                           | 1.0    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Manganese                                      | 350    | 1.0      |      | mg/Kg | 10  | 11/2/2012 4:51:10 PM   |
| Nickel                                         | 8.3    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Vanadium                                       | 28     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| Zinc                                           | 21     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:15:00 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:25:56 AM  |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-011

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-011

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:25:56 AM |
| Surr: 2,4,6-Tribromophenol             | 87.0   | 21.3-145 |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| Surr: 2-Fluorobiphenyl                 | 89.9   | 20-131   |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| Surr: 2-Fluorophenol                   | 83.0   | 11.9-130 |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| Surr: 4-Terphenyl-d14                  | 82.7   | 25.1-149 |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| Surr: Nitrobenzene-d5                  | 98.6   | 25.6-137 |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| Surr: Phenol-d5                        | 86.9   | 20.3-132 |      | %REC  | 1  | 10/22/2012 5:25:56 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Toluene                                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Ethylbenzene                           | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Xylenes, Total                         | ND     | 0.00171  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Naphthalene                            | ND     | 0.00171  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1-Methylnaphthalene                    | ND     | 0.00342  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 2-Methylnaphthalene                    | ND     | 0.00342  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Acetone                                | 0.0139 | 0.00854  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Bromobenzene                           | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Bromodichloromethane                   | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Bromoform                              | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Bromomethane                           | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 2-Butanone                             | ND     | 0.00854  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Carbon tetrachloride                   | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Chlorobenzene                          | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Chloroethane                           | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |

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## Analytical Report

Lab Order 1210811

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| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Chloromethane                          | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 2-Chlorotoluene                        | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Carbon disulfide                       | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 4-Chlorotoluene                        | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| cis-1,2-DCE                            | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Dibromochloromethane                   | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Dibromomethane                         | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Dichlorodifluoromethane                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1-Dichloroethane                     | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1-Dichloroethene                     | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2-Dichloropropane                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,3-Dichloropropane                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 2,2-Dichloropropane                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1-Dichloropropene                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Hexachlorobutadiene                    | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Isopropylbenzene                       | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 4-Isopropyltoluene                     | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Methylene chloride                     | ND     | 0.00256  |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| n-Butylbenzene                         | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 2-Hexanone                             | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| n-Propylbenzene                        | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| sec-Butylbenzene                       | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Styrene                                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| tert-Butylbenzene                      | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| trans-1,2-DCE                          | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Trichloroethene (TCE)                  | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Trichlorofluoromethane                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-14 (1.5-2') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 3:55:00 PM

**Lab ID:** 1210811-011

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Vinyl chloride                         | ND     | 0.000854 |      | mg/Kg | 1  | 10/17/2012 8:34:21 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.5   | 70-130   |      | %REC  | 1  | 10/17/2012 8:34:21 PM |
| Surr: 4-Bromofluorobenzene             | 88.9   | 70-130   |      | %REC  | 1  | 10/17/2012 8:34:21 PM |
| Surr: Dibromofluoromethane             | 103    | 70-130   |      | %REC  | 1  | 10/17/2012 8:34:21 PM |
| Surr: Toluene-d8                       | 80.8   | 70-130   |      | %REC  | 1  | 10/17/2012 8:34:21 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:20:00 PM

**Lab ID:** 1210811-012

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/18/2012 11:23:15 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/18/2012 11:23:15 AM |
| Surr: DNOP                                     | 97.5   | 77.6-140 |      | %REC  | 1   | 10/18/2012 11:23:15 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 4:24:48 PM  |
| Surr: BFB                                      | 87.7   | 84-116   |      | %REC  | 1   | 10/24/2012 4:24:48 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:07:10 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Arsenic                                        | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Barium                                         | 360    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:58:52 PM   |
| Beryllium                                      | 0.75   | 0.75     |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Chromium                                       | 10     | 1.5      |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Cobalt                                         | 4.4    | 1.5      |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 5:01:17 PM   |
| Lead                                           | 3.1    | 1.3      |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Manganese                                      | 350    | 2.0      |      | mg/Kg | 20  | 11/2/2012 4:58:52 PM   |
| Nickel                                         | 7.6    | 2.5      |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Selenium                                       | ND     | 13       |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Silver                                         | ND     | 1.3      |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Vanadium                                       | 19     | 13       |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| Zinc                                           | 18     | 13       |      | mg/Kg | 5   | 11/2/2012 4:56:27 PM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 5:54:58 AM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:20:00 PM

**Lab ID:** 1210811-012

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |

**Qualifiers:**

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- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:20:00 PM

**Lab ID:** 1210811-012

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 5:54:58 AM |
| Surr: 2,4,6-Tribromophenol             | 82.7    | 21.3-145 |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| Surr: 2-Fluorobiphenyl                 | 93.6    | 20-131   |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| Surr: 2-Fluorophenol                   | 74.2    | 11.9-130 |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| Surr: 4-Terphenyl-d14                  | 81.0    | 25.1-149 |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| Surr: Nitrobenzene-d5                  | 96.8    | 25.6-137 |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| Surr: Phenol-d5                        | 79.4    | 20.3-132 |      | %REC  | 1  | 10/22/2012 5:54:58 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00192 | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Toluene                                | 0.00151 | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Ethylbenzene                           | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Xylenes, Total                         | 0.00254 | 0.00146  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Naphthalene                            | ND      | 0.00146  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1-Methylnaphthalene                    | ND      | 0.00292  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 2-Methylnaphthalene                    | ND      | 0.00292  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Acetone                                | 0.0754  | 0.00730  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Bromobenzene                           | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Bromodichloromethane                   | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Bromoform                              | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Bromomethane                           | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 2-Butanone                             | ND      | 0.00730  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Carbon tetrachloride                   | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Chlorobenzene                          | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Chloroethane                           | ND      | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:20:00 PM

**Lab ID:** 1210811-012

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Chloromethane                          | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 2-Chlorotoluene                        | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Carbon disulfide                       | ND     | 0.00730  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 4-Chlorotoluene                        | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| cis-1,2-DCE                            | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Dibromochloromethane                   | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Dibromomethane                         | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Dichlorodifluoromethane                | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1-Dichloroethane                     | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1-Dichloroethene                     | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2-Dichloropropane                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,3-Dichloropropane                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 2,2-Dichloropropane                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1-Dichloropropene                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Hexachlorobutadiene                    | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Isopropylbenzene                       | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 4-Isopropyltoluene                     | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Methylene chloride                     | ND     | 0.00219  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| n-Butylbenzene                         | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 2-Hexanone                             | ND     | 0.00730  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| n-Propylbenzene                        | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| sec-Butylbenzene                       | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Styrene                                | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00730  |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| tert-Butylbenzene                      | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| trans-1,2-DCE                          | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Trichloroethene (TCE)                  | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Trichlorofluoromethane                 | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:20:00 PM

**Lab ID:** 1210811-012

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Vinyl chloride                         | ND     | 0.000730 |      | mg/Kg | 1  | 10/17/2012 9:05:05 PM |
| Surr: 1,2-Dichloroethane-d4            | 101    | 70-130   |      | %REC  | 1  | 10/17/2012 9:05:05 PM |
| Surr: 4-Bromofluorobenzene             | 90.2   | 70-130   |      | %REC  | 1  | 10/17/2012 9:05:05 PM |
| Surr: Dibromofluoromethane             | 112    | 70-130   |      | %REC  | 1  | 10/17/2012 9:05:05 PM |
| Surr: Toluene-d8                       | 86.6   | 70-130   |      | %REC  | 1  | 10/17/2012 9:05:05 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:30:00 PM

**Lab ID:** 1210811-013

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/18/2012 12:32:30 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 48       |      | mg/Kg | 1   | 10/18/2012 12:32:30 PM |
| Surr: DNOP                                     | 94.3   | 77.6-140 |      | %REC  | 1   | 10/18/2012 12:32:30 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 4:53:34 PM  |
| Surr: BFB                                      | 87.1   | 84-116   |      | %REC  | 1   | 10/24/2012 4:53:34 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:08:57 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Barium                                         | 240    | 1.0      |      | mg/Kg | 10  | 11/2/2012 5:04:08 PM   |
| Beryllium                                      | 0.79   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Cobalt                                         | 5.3    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Iron                                           | 12000  | 500      |      | mg/Kg | 500 | 11/6/2012 11:53:57 AM  |
| Lead                                           | 1.4    | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Manganese                                      | 400    | 1.0      |      | mg/Kg | 10  | 11/2/2012 5:04:08 PM   |
| Nickel                                         | 8.3    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Vanadium                                       | 22     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| Zinc                                           | 21     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:19:59 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/22/2012 6:23:55 AM  |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:30:00 PM

**Lab ID:** 1210811-013

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:30:00 PM

**Lab ID:** 1210811-013

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/22/2012 6:23:55 AM |
| Surr: 2,4,6-Tribromophenol             | 97.1    | 21.3-145 |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| Surr: 2-Fluorobiphenyl                 | 93.0    | 20-131   |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| Surr: 2-Fluorophenol                   | 81.8    | 11.9-130 |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| Surr: 4-Terphenyl-d14                  | 80.3    | 25.1-149 |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| Surr: Nitrobenzene-d5                  | 97.2    | 25.6-137 |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| Surr: Phenol-d5                        | 84.7    | 20.3-132 |      | %REC  | 1  | 10/22/2012 6:23:55 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Toluene                                | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Ethylbenzene                           | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Xylenes, Total                         | ND      | 0.00144  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Methyl tert-butyl ether (MTBE)         | 0.00147 | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Naphthalene                            | ND      | 0.00144  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1-Methylnaphthalene                    | ND      | 0.00288  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 2-Methylnaphthalene                    | ND      | 0.00288  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Acetone                                | 0.0328  | 0.00721  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Bromobenzene                           | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Bromodichloromethane                   | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Bromoform                              | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Bromomethane                           | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 2-Butanone                             | ND      | 0.00721  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Carbon tetrachloride                   | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Chlorobenzene                          | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Chloroethane                           | ND      | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:30:00 PM

**Lab ID:** 1210811-013

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Chloromethane                          | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 2-Chlorotoluene                        | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Carbon disulfide                       | ND     | 0.00721  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 4-Chlorotoluene                        | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| cis-1,2-DCE                            | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Dibromochloromethane                   | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Dibromomethane                         | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Dichlorodifluoromethane                | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1-Dichloroethane                     | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1-Dichloroethene                     | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2-Dichloropropane                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,3-Dichloropropane                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 2,2-Dichloropropane                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1-Dichloropropene                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Hexachlorobutadiene                    | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Isopropylbenzene                       | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 4-Isopropyltoluene                     | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Methylene chloride                     | ND     | 0.00216  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| n-Butylbenzene                         | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 2-Hexanone                             | ND     | 0.00721  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| n-Propylbenzene                        | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| sec-Butylbenzene                       | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Styrene                                | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00721  |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| tert-Butylbenzene                      | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| trans-1,2-DCE                          | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Trichloroethene (TCE)                  | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Trichlorofluoromethane                 | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-15 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:30:00 PM

**Lab ID:** 1210811-013

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Vinyl chloride                         | ND     | 0.000721 |      | mg/Kg | 1  | 10/17/2012 9:35:46 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.9   | 70-130   |      | %REC  | 1  | 10/17/2012 9:35:46 PM |
| Surr: 4-Bromofluorobenzene             | 107    | 70-130   |      | %REC  | 1  | 10/17/2012 9:35:46 PM |
| Surr: Dibromofluoromethane             | 109    | 70-130   |      | %REC  | 1  | 10/17/2012 9:35:46 PM |
| Surr: Toluene-d8                       | 94.9   | 70-130   |      | %REC  | 1  | 10/17/2012 9:35:46 PM |

### Qualifiers:

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J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:55:00 PM

**Lab ID:** 1210811-014

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/18/2012 2:11:51 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/18/2012 2:11:51 PM |
| Surr: DNOP                                     | 94.8   | 77.6-140 |      | %REC  | 1   | 10/18/2012 2:11:51 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 5:22:13 PM |
| Surr: BFB                                      | 87.6   | 84-116   |      | %REC  | 1   | 10/24/2012 5:22:13 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:10:44 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Barium                                         | 640    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:19:54 PM  |
| Beryllium                                      | 0.46   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Chromium                                       | 3.9    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Cobalt                                         | 3.0    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Iron                                           | 3400   | 500      |      | mg/Kg | 500 | 11/6/2012 11:56:51 AM |
| Lead                                           | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Manganese                                      | 330    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:19:54 PM  |
| Nickel                                         | 4.6    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Vanadium                                       | 14     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| Zinc                                           | 14     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:22:28 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 6:52:45 AM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:55:00 PM

**Lab ID:** 1210811-014

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:55:00 PM

**Lab ID:** 1210811-014

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 6:52:45 AM  |
| Surr: 2,4,6-Tribromophenol             | 66.1    | 21.3-145 |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| Surr: 2-Fluorobiphenyl                 | 74.1    | 20-131   |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| Surr: 2-Fluorophenol                   | 58.3    | 11.9-130 |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| Surr: 4-Terphenyl-d14                  | 69.2    | 25.1-149 |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| Surr: Nitrobenzene-d5                  | 74.4    | 25.6-137 |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| Surr: Phenol-d5                        | 65.1    | 20.3-132 |      | %REC  | 1  | 10/22/2012 6:52:45 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00134 | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Toluene                                | 0.00712 | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Ethylbenzene                           | 0.00282 | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Xylenes, Total                         | 0.0130  | 0.00157  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2,4-Trimethylbenzene                 | 0.00423 | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,3,5-Trimethylbenzene                 | 0.00176 | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Naphthalene                            | ND      | 0.00157  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1-Methylnaphthalene                    | ND      | 0.00314  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 2-Methylnaphthalene                    | ND      | 0.00314  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Acetone                                | 0.0845  | 0.00785  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Bromobenzene                           | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Bromodichloromethane                   | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Bromoform                              | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Bromomethane                           | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 2-Butanone                             | ND      | 0.00785  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Carbon tetrachloride                   | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Chlorobenzene                          | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Chloroethane                           | ND      | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:55:00 PM

**Lab ID:** 1210811-014

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Chloromethane                          | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 2-Chlorotoluene                        | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Carbon disulfide                       | ND     | 0.00785  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 4-Chlorotoluene                        | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| cis-1,2-DCE                            | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Dibromochloromethane                   | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Dibromomethane                         | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Dichlorodifluoromethane                | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1-Dichloroethane                     | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1-Dichloroethene                     | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2-Dichloropropane                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,3-Dichloropropane                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 2,2-Dichloropropane                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1-Dichloropropene                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Hexachlorobutadiene                    | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Isopropylbenzene                       | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 4-Isopropyltoluene                     | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Methylene chloride                     | ND     | 0.00236  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| n-Butylbenzene                         | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 2-Hexanone                             | ND     | 0.00785  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| n-Propylbenzene                        | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| sec-Butylbenzene                       | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Styrene                                | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00785  |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| tert-Butylbenzene                      | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| trans-1,2-DCE                          | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Trichloroethene (TCE)                  | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Trichlorofluoromethane                 | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 4:55:00 PM

**Lab ID:** 1210811-014

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Vinyl chloride                         | ND     | 0.000785 |      | mg/Kg | 1  | 10/17/2012 10:06:30 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.6   | 70-130   |      | %REC  | 1  | 10/17/2012 10:06:30 PM |
| Surr: 4-Bromofluorobenzene             | 93.7   | 70-130   |      | %REC  | 1  | 10/17/2012 10:06:30 PM |
| Surr: Dibromofluoromethane             | 104    | 70-130   |      | %REC  | 1  | 10/17/2012 10:06:30 PM |
| Surr: Toluene-d8                       | 91.8   | 70-130   |      | %REC  | 1  | 10/17/2012 10:06:30 PM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:05:00 PM

**Lab ID:** 1210811-015

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 8:41:24 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/19/2012 8:41:24 AM |
| Surr: DNOP                                     | 101    | 77.6-140 |      | %REC  | 1   | 10/19/2012 8:41:24 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 5:50:52 PM |
| Surr: BFB                                      | 89.9   | 84-116   |      | %REC  | 1   | 10/24/2012 5:50:52 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.033  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:23:10 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 11/6/2012 11:59:37 AM |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 11/6/2012 11:59:37 AM |
| Barium                                         | 290    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:27:35 PM  |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Chromium                                       | 9.9    | 1.5      |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Cobalt                                         | 4.2    | 1.5      |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Iron                                           | 12000  | 500      |      | mg/Kg | 500 | 11/6/2012 12:02:39 PM |
| Lead                                           | 4.2    | 1.2      |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Manganese                                      | 790    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:27:35 PM  |
| Nickel                                         | 7.2    | 2.5      |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Vanadium                                       | 18     | 12       |      | mg/Kg | 5   | 11/2/2012 5:25:09 PM  |
| Zinc                                           | 17     | 12       |      | mg/Kg | 5   | 11/6/2012 11:59:37 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:21:36 AM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:05:00 PM

**Lab ID:** 1210811-015

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:05:00 PM

**Lab ID:** 1210811-015

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:21:36 AM  |
| Surr: 2,4,6-Tribromophenol             | 84.9    | 21.3-145 |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| Surr: 2-Fluorobiphenyl                 | 93.5    | 20-131   |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| Surr: 2-Fluorophenol                   | 89.6    | 11.9-130 |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| Surr: 4-Terphenyl-d14                  | 85.1    | 25.1-149 |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| Surr: Nitrobenzene-d5                  | 101     | 25.6-137 |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| Surr: Phenol-d5                        | 89.6    | 20.3-132 |      | %REC  | 1  | 10/22/2012 7:21:36 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00166 | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Toluene                                | 0.00157 | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Ethylbenzene                           | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Xylenes, Total                         | ND      | 0.00149  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Naphthalene                            | ND      | 0.00149  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1-Methylnaphthalene                    | ND      | 0.00297  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 2-Methylnaphthalene                    | ND      | 0.00297  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Acetone                                | 0.0282  | 0.00743  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Bromobenzene                           | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Bromodichloromethane                   | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Bromoform                              | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Bromomethane                           | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 2-Butanone                             | ND      | 0.00743  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Carbon tetrachloride                   | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Chlorobenzene                          | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Chloroethane                           | ND      | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:05:00 PM

**Lab ID:** 1210811-015

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Chloromethane                          | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 2-Chlorotoluene                        | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Carbon disulfide                       | ND     | 0.00743  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 4-Chlorotoluene                        | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| cis-1,2-DCE                            | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Dibromochloromethane                   | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Dibromomethane                         | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Dichlorodifluoromethane                | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1-Dichloroethane                     | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1-Dichloroethene                     | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2-Dichloropropane                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,3-Dichloropropane                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 2,2-Dichloropropane                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1-Dichloropropene                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Hexachlorobutadiene                    | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Isopropylbenzene                       | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 4-Isopropyltoluene                     | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Methylene chloride                     | ND     | 0.00223  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| n-Butylbenzene                         | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 2-Hexanone                             | ND     | 0.00743  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| n-Propylbenzene                        | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| sec-Butylbenzene                       | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Styrene                                | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00743  |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| tert-Butylbenzene                      | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| trans-1,2-DCE                          | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Trichloroethene (TCE)                  | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Trichlorofluoromethane                 | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-16 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:05:00 PM

**Lab ID:** 1210811-015

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Vinyl chloride                         | ND     | 0.000743 |      | mg/Kg | 1  | 10/17/2012 10:37:20 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.8   | 70-130   |      | %REC  | 1  | 10/17/2012 10:37:20 PM |
| Surr: 4-Bromofluorobenzene             | 97.8   | 70-130   |      | %REC  | 1  | 10/17/2012 10:37:20 PM |
| Surr: Dibromofluoromethane             | 101    | 70-130   |      | %REC  | 1  | 10/17/2012 10:37:20 PM |
| Surr: Toluene-d8                       | 97.5   | 70-130   |      | %REC  | 1  | 10/17/2012 10:37:20 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:30:00 PM

**Lab ID:** 1210811-016

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/18/2012 2:37:02 PM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/18/2012 2:37:02 PM  |
| Surr: DNOP                                     | 93.7   | 77.6-140 |      | %REC  | 1   | 10/18/2012 2:37:02 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 6:19:44 PM  |
| Surr: BFB                                      | 90.2   | 84-116   |      | %REC  | 1   | 10/24/2012 6:19:44 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:24:57 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/27/2012 10:08:12 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/27/2012 10:08:12 AM |
| Barium                                         | 500    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:40:07 PM   |
| Beryllium                                      | 0.67   | 0.30     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Chromium                                       | 6.6    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Iron                                           | 8200   | 500      |      | mg/Kg | 500 | 11/6/2012 2:17:39 PM   |
| Lead                                           | 0.82   | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Manganese                                      | 360    | 2.0      |      | mg/Kg | 20  | 11/2/2012 5:40:07 PM   |
| Nickel                                         | 6.4    | 1.0      |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/27/2012 10:08:12 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| Zinc                                           | 15     | 5.0      |      | mg/Kg | 2   | 11/2/2012 11:37:29 AM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 7:50:26 AM  |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:30:00 PM

**Lab ID:** 1210811-016

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:30:00 PM

**Lab ID:** 1210811-016

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 7:50:26 AM  |
| Surr: 2,4,6-Tribromophenol             | 91.6    | 21.3-145 |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| Surr: 2-Fluorobiphenyl                 | 96.7    | 20-131   |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| Surr: 2-Fluorophenol                   | 87.5    | 11.9-130 |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| Surr: 4-Terphenyl-d14                  | 87.9    | 25.1-149 |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| Surr: Nitrobenzene-d5                  | 98.8    | 25.6-137 |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| Surr: Phenol-d5                        | 88.9    | 20.3-132 |      | %REC  | 1  | 10/22/2012 7:50:26 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00129 | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Toluene                                | 0.00708 | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Ethylbenzene                           | 0.00362 | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Xylenes, Total                         | 0.0234  | 0.00150  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2,4-Trimethylbenzene                 | 0.00424 | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,3,5-Trimethylbenzene                 | 0.00164 | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Naphthalene                            | ND      | 0.00150  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1-Methylnaphthalene                    | ND      | 0.00301  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 2-Methylnaphthalene                    | ND      | 0.00301  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Acetone                                | 0.377   | 0.00752  | E    | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Bromobenzene                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Bromodichloromethane                   | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Bromoform                              | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Bromomethane                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 2-Butanone                             | ND      | 0.00752  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Carbon tetrachloride                   | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Chlorobenzene                          | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Chloroethane                           | ND      | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:30:00 PM

**Lab ID:** 1210811-016

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Chloromethane                          | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 2-Chlorotoluene                        | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Carbon disulfide                       | ND     | 0.00752  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 4-Chlorotoluene                        | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| cis-1,2-DCE                            | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Dibromochloromethane                   | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Dibromomethane                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Dichlorodifluoromethane                | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1-Dichloroethane                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1-Dichloroethene                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,3-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 2,2-Dichloropropane                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1-Dichloropropene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Hexachlorobutadiene                    | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Isopropylbenzene                       | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 4-Isopropyltoluene                     | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Methylene chloride                     | ND     | 0.00226  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| n-Butylbenzene                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 2-Hexanone                             | ND     | 0.00752  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| n-Propylbenzene                        | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| sec-Butylbenzene                       | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Styrene                                | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00752  |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| tert-Butylbenzene                      | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| trans-1,2-DCE                          | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Trichloroethene (TCE)                  | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Trichlorofluoromethane                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:30:00 PM

**Lab ID:** 1210811-016

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Vinyl chloride                         | ND     | 0.000752 |      | mg/Kg | 1  | 10/17/2012 11:08:05 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.7   | 70-130   |      | %REC  | 1  | 10/17/2012 11:08:05 PM |
| Surr: 4-Bromofluorobenzene             | 92.0   | 70-130   |      | %REC  | 1  | 10/17/2012 11:08:05 PM |
| Surr: Dibromofluoromethane             | 105    | 70-130   |      | %REC  | 1  | 10/17/2012 11:08:05 PM |
| Surr: Toluene-d8                       | 91.5   | 70-130   |      | %REC  | 1  | 10/17/2012 11:08:05 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:40:00 PM

**Lab ID:** 1210811-017

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 9.8      |      | mg/Kg | 1   | 10/18/2012 3:02:26 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/18/2012 3:02:26 PM |
| Surr: DNOP                                     | 96.0   | 77.6-140 |      | %REC  | 1   | 10/18/2012 3:02:26 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 6:48:35 PM |
| Surr: BFB                                      | 88.8   | 84-116   |      | %REC  | 1   | 10/24/2012 6:48:35 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:26:46 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/6/2012 12:24:33 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 11/6/2012 2:00:22 PM  |
| Barium                                         | 310    | 2.0      |      | mg/Kg | 20  | 11/2/2012 6:05:26 PM  |
| Beryllium                                      | 0.78   | 0.30     |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Chromium                                       | 8.8    | 0.60     |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 11/6/2012 2:20:27 PM  |
| Lead                                           | 3.5    | 0.50     |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Manganese                                      | 340    | 2.0      |      | mg/Kg | 20  | 11/2/2012 6:05:26 PM  |
| Nickel                                         | 7.2    | 1.0      |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 11/13/2012 5:30:19 AM |
| Vanadium                                       | 13     | 5.0      |      | mg/Kg | 2   | 11/2/2012 6:02:58 PM  |
| Zinc                                           | 15     | 5.0      |      | mg/Kg | 2   | 11/6/2012 12:24:33 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzoic acid                                   | ND     | 0.99     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/22/2012 8:19:31 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:40:00 PM

**Lab ID:** 1210811-017

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 4-Chloroaniline                        | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Di-n-butyl phthalate                   | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Di-n-octyl phthalate                   | ND     | 0.79 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2,4-Dichlorophenol                     | ND     | 0.79 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2,4-Dinitrophenol                      | ND     | 0.79 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Isophorone                             | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2-Methylphenol                         | ND     | 0.99 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:40:00 PM

**Lab ID:** 1210811-017

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 4-Nitroaniline                         | ND      | 0.79     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Nitrobenzene                           | ND      | 0.99     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Pentachlorophenol                      | ND      | 0.79     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Pyridine                               | ND      | 0.99     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/22/2012 8:19:31 AM  |
| Surr: 2,4,6-Tribromophenol             | 84.8    | 21.3-145 |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| Surr: 2-Fluorobiphenyl                 | 83.4    | 20-131   |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| Surr: 2-Fluorophenol                   | 82.3    | 11.9-130 |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| Surr: 4-Terphenyl-d14                  | 85.4    | 25.1-149 |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| Surr: Nitrobenzene-d5                  | 93.3    | 25.6-137 |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| Surr: Phenol-d5                        | 80.4    | 20.3-132 |      | %REC  | 1  | 10/22/2012 8:19:31 AM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00269 | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Toluene                                | 0.00185 | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Ethylbenzene                           | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Xylenes, Total                         | ND      | 0.00167  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Naphthalene                            | ND      | 0.00167  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1-Methylnaphthalene                    | ND      | 0.00334  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 2-Methylnaphthalene                    | ND      | 0.00334  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Acetone                                | 0.0615  | 0.00834  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Bromobenzene                           | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Bromodichloromethane                   | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Bromoform                              | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Bromomethane                           | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 2-Butanone                             | 0.0107  | 0.00834  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Carbon tetrachloride                   | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Chlorobenzene                          | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Chloroethane                           | ND      | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:40:00 PM

**Lab ID:** 1210811-017

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Chloromethane                          | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 2-Chlorotoluene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Carbon disulfide                       | ND     | 0.00834  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 4-Chlorotoluene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| cis-1,2-DCE                            | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Dibromochloromethane                   | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Dibromomethane                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Dichlorodifluoromethane                | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1-Dichloroethane                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1-Dichloroethene                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,3-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 2,2-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1-Dichloropropene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Hexachlorobutadiene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Isopropylbenzene                       | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 4-Isopropyltoluene                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Methylene chloride                     | ND     | 0.00250  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| n-Butylbenzene                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 2-Hexanone                             | ND     | 0.00834  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| n-Propylbenzene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| sec-Butylbenzene                       | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Styrene                                | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00834  |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| tert-Butylbenzene                      | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| trans-1,2-DCE                          | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Trichloroethene (TCE)                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Trichlorofluoromethane                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-17 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 5:40:00 PM

**Lab ID:** 1210811-017

**Matrix:** SOIL

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Vinyl chloride                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/17/2012 11:38:49 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.7   | 70-130   |      | %REC  | 1  | 10/17/2012 11:38:49 PM |
| Surr: 4-Bromofluorobenzene             | 111    | 70-130   |      | %REC  | 1  | 10/17/2012 11:38:49 PM |
| Surr: Dibromofluoromethane             | 107    | 70-130   |      | %REC  | 1  | 10/17/2012 11:38:49 PM |
| Surr: Toluene-d8                       | 82.3   | 70-130   |      | %REC  | 1  | 10/17/2012 11:38:49 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101512

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 6:00:00 PM

**Lab ID:** 1210811-018

**Matrix:** AQUEOUS

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>  |        |          |      |       |    | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)            | ND     | 1.0      |      | mg/L  | 1  | 10/17/2012 5:29:17 PM  |
| Motor Oil Range Organics (MRO)         | ND     | 5.0      |      | mg/L  | 1  | 10/17/2012 5:29:17 PM  |
| Surr: DNOP                             | 110    | 79.5-166 |      | %REC  | 1  | 10/17/2012 5:29:17 PM  |
| <b>EPA METHOD 300.0: ANIONS</b>        |        |          |      |       |    | Analyst: <b>SRM</b>    |
| Fluoride                               | ND     | 0.10     |      | mg/L  | 1  | 10/17/2012 11:42:11 AM |
| Chloride                               | ND     | 0.50     |      | mg/L  | 1  | 10/17/2012 11:42:11 AM |
| Sulfate                                | ND     | 0.50     |      | mg/L  | 1  | 10/17/2012 11:42:11 AM |
| <b>EPA METHOD 200.7: METALS</b>        |        |          |      |       |    | Analyst: <b>JLF</b>    |
| Barium                                 | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Beryllium                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Cadmium                                | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Chromium                               | ND     | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Cobalt                                 | 0.16   | 0.0060   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Iron                                   | 0.16   | 0.020    |      | mg/L  | 1  | 10/18/2012 1:47:35 PM  |
| Manganese                              | ND     | 0.0020   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Nickel                                 | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Silver                                 | ND     | 0.0050   |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Vanadium                               | ND     | 0.050    |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| Zinc                                   | ND     | 0.010    |      | mg/L  | 1  | 10/17/2012 9:49:33 PM  |
| <b>EPA 200.8: METALS</b>               |        |          |      |       |    | Analyst: <b>DBD</b>    |
| Antimony                               | ND     | 0.0010   |      | mg/L  | 1  | 10/30/2012 4:04:21 PM  |
| Arsenic                                | ND     | 0.0010   |      | mg/L  | 1  | 10/30/2012 4:04:21 PM  |
| Lead                                   | ND     | 0.0010   |      | mg/L  | 1  | 10/30/2012 4:04:21 PM  |
| Selenium                               | ND     | 0.0010   |      | mg/L  | 1  | 10/30/2012 4:04:21 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>       |        |          |      |       |    | Analyst: <b>IDC</b>    |
| Mercury                                | ND     | 0.00020  |      | mg/L  | 1  | 10/30/2012 6:51:42 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: <b>JDC</b>    |
| Acenaphthene                           | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Acenaphthylene                         | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Aniline                                | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Anthracene                             | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Azobenzene                             | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benz(a)anthracene                      | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzo(a)pyrene                         | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzo(b)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzo(g,h,i)perylene                   | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzo(k)fluoranthene                   | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzoic acid                           | ND     | 20       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |
| Benzyl alcohol                         | ND     | 10       |      | µg/L  | 1  | 10/22/2012 7:47:47 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101512

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 6:00:00 PM

**Lab ID:** 1210811-018

**Matrix:** AQUEOUS

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethoxy)methane             | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Di-n-octyl phthalate                   | ND     | 20 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101512

Project: SWMU NO.1

Collection Date: 10/15/2012 6:00:00 PM

Lab ID: 1210811-018

Matrix: AQUEOUS

Received Date: 10/17/2012 8:00:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodimethylamine                 | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 10/22/2012 7:47:47 PM |
| Surr: 2,4,6-Tribromophenol             | 79.8   | 42.9-124  |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| Surr: 2-Fluorobiphenyl                 | 73.5   | 40-108    |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| Surr: 2-Fluorophenol                   | 54.3   | 23.6-94.8 |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| Surr: 4-Terphenyl-d14                  | 70.5   | 41.9-103  |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| Surr: Nitrobenzene-d5                  | 79.5   | 42.6-114  |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| Surr: Phenol-d5                        | 39.4   | 20.3-74.7 |      | %REC  | 1  | 10/22/2012 7:47:47 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: MMS          |
| Benzene                                | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Acetone                                | ND     | 10        |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB101512

Project: SWMU NO.1

Collection Date: 10/15/2012 6:00:00 PM

Lab ID: 1210811-018

Matrix: AQUEOUS

Received Date: 10/17/2012 8:00:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: MMS          |
| Carbon disulfide                   | ND     | 10  |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Carbon Tetrachloride               | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Chlorobenzene                      | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Chloroethane                       | ND     | 2.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Chloroform                         | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Chloromethane                      | ND     | 3.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| cis-1,2-DCE                        | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Dibromochloromethane               | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Dibromomethane                     | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1-Dichloroethane                 | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1-Dichloropropene                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Hexachlorobutadiene                | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 2-Hexanone                         | ND     | 10  |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Isopropylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Methylene Chloride                 | ND     | 3.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| n-Butylbenzene                     | ND     | 3.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| n-Propylbenzene                    | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| sec-Butylbenzene                   | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Styrene                            | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| tert-Butylbenzene                  | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 2.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| trans-1,2-DCE                      | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2,3-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | µg/L  | 1  | 10/20/2012 5:00:19 AM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210811

Date Reported: 11/28/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** EB101512

**Project:** SWMU NO.1

**Collection Date:** 10/15/2012 6:00:00 PM

**Lab ID:** 1210811-018

**Matrix:** AQUEOUS

**Received Date:** 10/17/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed          |
|-----------------------------------------|--------|--------|------|-------|----|------------------------|
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: <b>MMS</b>    |
| 1,1,2-Trichloroethane                   | ND     | 1.0    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| Trichloroethene (TCE)                   | ND     | 1.0    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| Trichlorofluoromethane                  | ND     | 1.0    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| 1,2,3-Trichloropropane                  | ND     | 2.0    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| Vinyl chloride                          | ND     | 1.0    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| Xylenes, Total                          | ND     | 1.5    |      | µg/L  | 1  | 10/20/2012 5:00:19 AM  |
| Surr: 1,2-Dichloroethane-d4             | 98.4   | 70-130 |      | %REC  | 1  | 10/20/2012 5:00:19 AM  |
| Surr: 4-Bromofluorobenzene              | 100    | 70-130 |      | %REC  | 1  | 10/20/2012 5:00:19 AM  |
| Surr: Dibromofluoromethane              | 104    | 70-130 |      | %REC  | 1  | 10/20/2012 5:00:19 AM  |
| Surr: Toluene-d8                        | 97.7   | 70-130 |      | %REC  | 1  | 10/20/2012 5:00:19 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: <b>RAA</b>    |
| Gasoline Range Organics (GRO)           | ND     | 0.050  |      | mg/L  | 1  | 10/20/2012 11:46:01 PM |
| Surr: BFB                               | 91.0   | 70-130 |      | %REC  | 1  | 10/20/2012 11:46:01 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121018035  
**Project Name:** 1210811

## Analytical Results Report

|                  |                                 |               |            |                    |                     |           |           |
|------------------|---------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-001                   | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-001D / SWMU 1-9 (0-0.5) | Sampling Time | 10:55 AM   |                    |                     |           |           |
| Matrix           | Soil                            |               |            |                    |                     |           |           |
| Comments         |                                 |               |            |                    |                     |           |           |
| Parameter        | Result                          | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | 1.41                            | mg/Kg         | 0.26       | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 7.9                             | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                 |               |            |                    |                     |           |           |
|------------------|---------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-002                   | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-002D / SWMU 1-9 (1.5-2) | Sampling Time | 11:05 AM   |                    |                     |           |           |
| Matrix           | Soil                            |               |            |                    |                     |           |           |
| Comments         |                                 |               |            |                    |                     |           |           |
| Parameter        | Result                          | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | ND                              | mg/Kg         | 0.285      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 14.4                            | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-003                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-003D / SWMU 1-10 (0-0.5) | Sampling Time | 11:20 AM   |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | 1.84                             | mg/Kg         | 0.241      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 2.9                              | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-004                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-004D / SWMU 1-10 (1.5-2) | Sampling Time | 11:30 AM   |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | 0.399                            | mg/Kg         | 0.256      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 4.2                              | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C585  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

# Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121018035  
**Project Name:** 1210811

## Analytical Results Report

**Sample Number** 121018035-005 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-005D / SWMU 1-11 (0-0.5) **Sampling Time** 12:05 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | 0.716  | mg/Kg   | 0.261 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 5.1    | Percent |       | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-006 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-006D / SWMU 1-11 (1.5-2) **Sampling Time** 12:20 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | 1.68   | mg/Kg   | 0.267 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 5.5    | Percent |       | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-007 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-007D / SWMU 1-12 (0-0.5) **Sampling Time** 2:45 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.25 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.9    | Percent |      | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-008 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-008D / SWMU 1-12 (0.5-1) **Sampling Time** 3:00 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | 1.15   | mg/Kg   | 0.245 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.9    | Percent |       | 10/30/2012    | CRW     | %moisture |           |

# Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121018035  
**Project Name:** 1210811

## Analytical Results Report

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-009                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-009D / SWMU 1-14 (0-0.5) | Sampling Time | 3:30 PM    |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.268      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 7.5                              | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-010                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-010D / SWMU 1-14 (1.5-2) | Sampling Time | 3:55 PM    |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.287      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 12.7                             | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-011                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-011D / SWMU 1-14 (1.5-2) | Sampling Time | 3:55 PM    |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.284      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 12.3                             | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

|                  |                                  |               |            |                    |                     |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|---------------------|-----------|-----------|
| Sample Number    | 121018035-012                    | Sampling Date | 10/15/2012 | Date/Time Received | 10/18/2012 12:20 PM |           |           |
| Client Sample ID | 1210811-012D / SWMU 1-15 (0-0.5) | Sampling Time | 4:20 PM    |                    |                     |           |           |
| Matrix           | Soil                             |               |            |                    |                     |           |           |
| Comments         |                                  |               |            |                    |                     |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst             | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.276      | 10/29/2012         | CRW                 | EPA 335.4 |           |
| %moisture        | 9.4                              | Percent       |            | 10/30/2012         | CRW                 | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121018035  
**Project Name:** 1210811

## Analytical Results Report

**Sample Number** 121018035-013 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-013D / SWMU 1-15 (1.5-2) **Sampling Time** 4:30 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.281 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 12.1   | Percent |       | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-014 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-014D / SWMU 1-16 (0-0.5) **Sampling Time** 4:55 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.254 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.3    | Percent |       | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-015 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-015D / SWMU 1-16 (1.5-2) **Sampling Time** 5:05 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.285 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 12.7   | Percent |       | 10/30/2012    | CRW     | %moisture |           |

**Sample Number** 121018035-016 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM  
**Client Sample ID** 1210811-016D / SWMU 1-17 (0-0.5) **Sampling Time** 5:30 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.244 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 3.4    | Percent |       | 10/30/2012    | CRW     | %moisture |           |

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121018035  
**Project Name:** 1210811

## Analytical Results Report

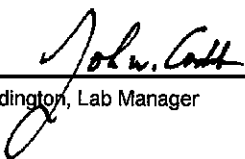
|                         |                                  |                      |            |                           |                     |
|-------------------------|----------------------------------|----------------------|------------|---------------------------|---------------------|
| <b>Sample Number</b>    | 121018035-017                    | <b>Sampling Date</b> | 10/15/2012 | <b>Date/Time Received</b> | 10/18/2012 12:20 PM |
| <b>Client Sample ID</b> | 1210811-017D / SWMU 1-17 (1-1.5) | <b>Sampling Time</b> | 5:40 PM    |                           |                     |
| <b>Matrix</b>           | Soil                             |                      |            |                           |                     |
| <b>Comments</b>         |                                  |                      |            |                           |                     |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.273 | 10/29/2012    | CRW     | EPA 335.4 |           |
| %moisture | 11.9   | Percent |       | 10/30/2012    | CRW     | %moisture |           |

|                         |                         |                      |            |                           |                     |
|-------------------------|-------------------------|----------------------|------------|---------------------------|---------------------|
| <b>Sample Number</b>    | 121018035-018           | <b>Sampling Date</b> | 10/15/2012 | <b>Date/Time Received</b> | 10/18/2012 12:20 PM |
| <b>Client Sample ID</b> | 1210811-018F / EB101512 | <b>Sampling Time</b> | 6:00 PM    |                           |                     |
| <b>Matrix</b>           | Water                   |                      |            |                           |                     |
| <b>Comments</b>         |                         |                      |            |                           |                     |

| Parameter | Result | Units | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|-------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/L  | 0.01 | 10/29/2012    | CRW     | EPA 335.4 |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |        |                                  |             |      |                                           |           |                    |          |      |
|------------|------------|--------|----------------------------------|-------------|------|-------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>MB</b>  |        | SampType: <b>MBLK</b>            |             |      | TestCode: <b>EPA Method 200.7: Metals</b> |           |                    |          |      |
| Client ID: | <b>PBW</b> |        | Batch ID: <b>R6311</b>           |             |      | RunNo: <b>6311</b>                        |           |                    |          |      |
| Prep Date: |            |        | Analysis Date: <b>10/17/2012</b> |             |      | SeqNo: <b>181710</b>                      |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result     | PQL    | SPK value                        | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD               | RPDLimit | Qual |
| Barium     | ND         | 0.0020 |                                  |             |      |                                           |           |                    |          |      |
| Beryllium  | ND         | 0.0020 |                                  |             |      |                                           |           |                    |          |      |
| Cadmium    | ND         | 0.0020 |                                  |             |      |                                           |           |                    |          |      |
| Chromium   | ND         | 0.0060 |                                  |             |      |                                           |           |                    |          |      |
| Cobalt     | ND         | 0.0060 |                                  |             |      |                                           |           |                    |          |      |
| Manganese  | ND         | 0.0020 |                                  |             |      |                                           |           |                    |          |      |
| Nickel     | ND         | 0.010  |                                  |             |      |                                           |           |                    |          |      |
| Silver     | ND         | 0.0050 |                                  |             |      |                                           |           |                    |          |      |
| Vanadium   | ND         | 0.050  |                                  |             |      |                                           |           |                    |          |      |
| Zinc       | ND         | 0.010  |                                  |             |      |                                           |           |                    |          |      |

|            |             |        |                                  |             |      |                                           |           |                    |          |      |
|------------|-------------|--------|----------------------------------|-------------|------|-------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>LCS</b>  |        | SampType: <b>LCS</b>             |             |      | TestCode: <b>EPA Method 200.7: Metals</b> |           |                    |          |      |
| Client ID: | <b>LCSW</b> |        | Batch ID: <b>R6311</b>           |             |      | RunNo: <b>6311</b>                        |           |                    |          |      |
| Prep Date: |             |        | Analysis Date: <b>10/17/2012</b> |             |      | SeqNo: <b>181711</b>                      |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result      | PQL    | SPK value                        | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD               | RPDLimit | Qual |
| Barium     | 0.50        | 0.0020 | 0.5000                           | 0           | 101  | 85                                        | 115       |                    |          |      |
| Beryllium  | 0.51        | 0.0020 | 0.5000                           | 0           | 103  | 85                                        | 115       |                    |          |      |
| Cadmium    | 0.51        | 0.0020 | 0.5000                           | 0           | 102  | 85                                        | 115       |                    |          |      |
| Chromium   | 0.49        | 0.0060 | 0.5000                           | 0           | 98.9 | 85                                        | 115       |                    |          |      |
| Cobalt     | 0.49        | 0.0060 | 0.5000                           | 0           | 97.1 | 85                                        | 115       |                    |          |      |
| Manganese  | 0.49        | 0.0020 | 0.5000                           | 0           | 98.1 | 85                                        | 115       |                    |          |      |
| Nickel     | 0.48        | 0.010  | 0.5000                           | 0           | 95.9 | 85                                        | 115       |                    |          |      |
| Silver     | 0.10        | 0.0050 | 0.1000                           | 0           | 102  | 85                                        | 115       |                    |          |      |
| Vanadium   | 0.52        | 0.050  | 0.5000                           | 0           | 104  | 85                                        | 115       |                    |          |      |
| Zinc       | 0.49        | 0.010  | 0.5000                           | 0           | 98.4 | 85                                        | 115       |                    |          |      |

|            |                       |        |                                  |             |      |                                           |           |                    |          |      |
|------------|-----------------------|--------|----------------------------------|-------------|------|-------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>1210572-018AMS</b> |        | SampType: <b>MS</b>              |             |      | TestCode: <b>EPA Method 200.7: Metals</b> |           |                    |          |      |
| Client ID: | <b>BatchQC</b>        |        | Batch ID: <b>R6311</b>           |             |      | RunNo: <b>6311</b>                        |           |                    |          |      |
| Prep Date: |                       |        | Analysis Date: <b>10/17/2012</b> |             |      | SeqNo: <b>181754</b>                      |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result                | PQL    | SPK value                        | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD               | RPDLimit | Qual |
| Cadmium    | 0.50                  | 0.0020 | 0.5000                           | 0           | 101  | 70                                        | 130       |                    |          |      |
| Chromium   | 0.47                  | 0.0060 | 0.5000                           | 0           | 95.0 | 70                                        | 130       |                    |          |      |
| Nickel     | 0.45                  | 0.010  | 0.5000                           | 0.001290    | 90.7 | 70                                        | 130       |                    |          |      |
| Zinc       | 0.46                  | 0.010  | 0.5000                           | 0           | 92.7 | 70                                        | 130       |                    |          |      |

|            |                        |     |                                  |             |      |                                           |           |                    |          |      |
|------------|------------------------|-----|----------------------------------|-------------|------|-------------------------------------------|-----------|--------------------|----------|------|
| Sample ID  | <b>1210572-018AMSD</b> |     | SampType: <b>MSD</b>             |             |      | TestCode: <b>EPA Method 200.7: Metals</b> |           |                    |          |      |
| Client ID: | <b>BatchQC</b>         |     | Batch ID: <b>R6311</b>           |             |      | RunNo: <b>6311</b>                        |           |                    |          |      |
| Prep Date: |                        |     | Analysis Date: <b>10/17/2012</b> |             |      | SeqNo: <b>181755</b>                      |           | Units: <b>mg/L</b> |          |      |
| Analyte    | Result                 | PQL | SPK value                        | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD               | RPDLimit | Qual |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |        |                           |             |                                    |          |             |      |          |      |
|------------|-----------------|--------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210572-018AMSD |        | SampType: MSD             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC         |        | Batch ID: R6311           |             | RunNo: 6311                        |          |             |      |          |      |
| Prep Date: |                 |        | Analysis Date: 10/17/2012 |             | SeqNo: 181755                      |          | Units: mg/L |      |          |      |
| Analyte    | Result          | PQL    | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Cadmium    | 0.50            | 0.0020 | 0.5000                    | 0           | 99.7                               | 70       | 130         | 1.02 | 20       |      |
| Chromium   | 0.47            | 0.0060 | 0.5000                    | 0           | 93.9                               | 70       | 130         | 1.11 | 20       |      |
| Nickel     | 0.46            | 0.010  | 0.5000                    | 0.001290    | 92.0                               | 70       | 130         | 1.48 | 20       |      |
| Zinc       | 0.46            | 0.010  | 0.5000                    | 0           | 91.7                               | 70       | 130         | 1.09 | 20       |      |

|            |        |                |            |             |           |                          |           |             |          |      |
|------------|--------|----------------|------------|-------------|-----------|--------------------------|-----------|-------------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       |             | TestCode: | EPA Method 200.7: Metals |           |             |          |      |
| Client ID: | PBW    | Batch ID:      | R6342      |             | RunNo:    | 6342                     |           |             |          |      |
| Prep Date: |        | Analysis Date: | 10/18/2012 |             | SeqNo:    | 182483                   |           | Units: mg/L |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC      | LowLimit                 | HighLimit | %RPD        | RPDLimit | Qual |
| Iron       | ND     | 0.020          |            |             |           |                          |           |             |          |      |

|            |        |       |                           |             |                                    |          |             |      |          |      |
|------------|--------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |       | SampType: LCS             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | LCSW   |       | Batch ID: R6342           |             | RunNo: 6342                        |          |             |      |          |      |
| Prep Date: |        |       | Analysis Date: 10/18/2012 |             | SeqNo: 182484                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.49   | 0.020 | 0.5000                    | 0           | 98.1                               | 85       | 115         |      |          |      |

|            |                |       |                           |             |                                    |          |             |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210513-001AMS |       | SampType: MS              |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: R6342           |             | RunNo: 6342                        |          |             |      |          |      |
| Prep Date: |                |       | Analysis Date: 10/18/2012 |             | SeqNo: 182578                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.50           | 0.020 | 0.5000                    | 0           | 100                                | 70       | 130         |      |          |      |

|            |                 |       |                           |             |                                    |          |             |      |          |      |
|------------|-----------------|-------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210513-001AMSD |       | SampType: MSD             |             | TestCode: EPA Method 200.7: Metals |          |             |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: R6342           |             | RunNo: 6342                        |          |             |      |          |      |
| Prep Date: |                 |       | Analysis Date: 10/18/2012 |             | SeqNo: 182579                      |          | Units: mg/L |      |          |      |
| Analyte    | Result          | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Iron       | 0.49            | 0.020 | 0.5000                    | 0           | 98.8                               | 70       | 130         | 1.41 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |        |                           |             |                             |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1209858-006AMS |        | SampType: MS              |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/30/2012 |             | SeqNo: 189993               |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.027          | 0.0010 | 0.02500                   | 0.0009490   | 105                         | 70       | 130         |      |          |      |

|            |                |        |                           |             |                             |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1209A21-003AMS |        | SampType: MS              |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/30/2012 |             | SeqNo: 190002               |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.027          | 0.0010 | 0.02500                   | 0.0003493   | 107                         | 70       | 130         |      |          |      |

|            |                |        |                           |             |                             |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210832-001EMS |        | SampType: MS              |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/30/2012 |             | SeqNo: 190029               |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.025          | 0.0010 | 0.02500                   | 0           | 100                         | 70       | 130         |      |          |      |
| Arsenic    | 0.026          | 0.0010 | 0.02500                   | 0           | 105                         | 70       | 130         |      |          |      |
| Selenium   | 0.026          | 0.0010 | 0.02500                   | 0           | 103                         | 70       | 130         |      |          |      |

|            |                |        |                           |             |                             |          |             |      |          |      |
|------------|----------------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210841-001AMS |        | SampType: MS              |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | BatchQC        |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |                |        | Analysis Date: 10/30/2012 |             | SeqNo: 190033               |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Arsenic    | 0.16           | 0.0050 | 0.1250                    | 0.03863     | 96.0                        | 70       | 130         |      |          |      |

|            |        |        |                           |             |                             |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/30/2012 |             | SeqNo: 190071               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Antimony   | 0.026  | 0.0010 | 0.02500                   | 0           | 103                         | 85       | 115         |      |          |      |
| Arsenic    | 0.026  | 0.0010 | 0.02500                   | 0           | 103                         | 85       | 115         |      |          |      |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 105                         | 85       | 115         |      |          |      |
| Selenium   | 0.026  | 0.0010 | 0.02500                   | 0           | 102                         | 85       | 115         |      |          |      |

|            |        |        |                           |             |                             |          |             |      |          |      |
|------------|--------|--------|---------------------------|-------------|-----------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |        | SampType: LCS             |             | TestCode: EPA 200.8: Metals |          |             |      |          |      |
| Client ID: | LCSW   |        | Batch ID: R6580           |             | RunNo: 6580                 |          |             |      |          |      |
| Prep Date: |        |        | Analysis Date: 10/30/2012 |             | SeqNo: 190073               |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL    | SPK value                 | SPK Ref Val | %REC                        | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Lead       | 0.026  | 0.0010 | 0.02500                   | 0           | 106                         | 85       | 115         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                |            |             |                   |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|-------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       | TestCode:   | EPA 200.8: Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R6580      | RunNo:      | 6580              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/30/2012 | SeqNo:      | 190075            | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC              | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Antimony   | ND     | 0.0010         |            |             |                   |          |           |      |          |      |
| Arsenic    | ND     | 0.0010         |            |             |                   |          |           |      |          |      |
| Lead       | ND     | 0.0010         |            |             |                   |          |           |      |          |      |
| Selenium   | ND     | 0.0010         |            |             |                   |          |           |      |          |      |

|            |        |                |            |             |                   |          |           |      |          |      |
|------------|--------|----------------|------------|-------------|-------------------|----------|-----------|------|----------|------|
| Sample ID  | MB     | SampType:      | MBLK       | TestCode:   | EPA 200.8: Metals |          |           |      |          |      |
| Client ID: | PBW    | Batch ID:      | R6580      | RunNo:      | 6580              |          |           |      |          |      |
| Prep Date: |        | Analysis Date: | 10/30/2012 | SeqNo:      | 190077            | Units:   | mg/L      |      |          |      |
| Analyte    | Result | PQL            | SPK value  | SPK Ref Val | %REC              | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead       | ND     | 0.0010         |            |             |                   |          |           |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4585    |         | SampType: mblk            |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | PBW        |         | Batch ID: 4585            |             | RunNo: 6596                         |          |             |      |          |      |
| Prep Date: | 10/30/2012 |         | Analysis Date: 10/30/2012 |             | SeqNo: 190499                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.00020 |                           |             |                                     |          |             |      |          |      |

|            |            |         |                           |             |                                     |          |             |      |          |      |
|------------|------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4585   |         | SampType: lcs             |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | LCSW       |         | Batch ID: 4585            |             | RunNo: 6596                         |          |             |      |          |      |
| Prep Date: | 10/30/2012 |         | Analysis Date: 10/30/2012 |             | SeqNo: 190500                       |          | Units: mg/L |      |          |      |
| Analyte    | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0049     | 0.00020 | 0.005000                  | 0           | 98.5                                | 80       | 120         |      |          |      |

|            |                |         |                           |             |                                     |          |             |      |          |      |
|------------|----------------|---------|---------------------------|-------------|-------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210C89-001AMS |         | SampType: ms              |             | TestCode: EPA Method 245.1: Mercury |          |             |      |          |      |
| Client ID: | BatchQC        |         | Batch ID: 4585            |             | RunNo: 6596                         |          |             |      |          |      |
| Prep Date: | 10/30/2012     |         | Analysis Date: 10/30/2012 |             | SeqNo: 190525                       |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL     | SPK value                 | SPK Ref Val | %REC                                | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Mercury    | 0.0098         | 0.00040 | 0.01000                   | 0           | 97.9                                | 75       | 125         |      |          |      |

|            |                 |         |                |             |      |           |                           |      |             |      |  |
|------------|-----------------|---------|----------------|-------------|------|-----------|---------------------------|------|-------------|------|--|
| Sample ID  | 1210C89-001AMSD |         | SampType:      | msd         |      | TestCode: | EPA Method 245.1: Mercury |      |             |      |  |
| Client ID: | BatchQC         |         | Batch ID:      | 4585        |      | RunNo:    | 6596                      |      |             |      |  |
| Prep Date: | 10/30/2012      |         | Analysis Date: | 10/30/2012  |      | SeqNo:    | 190526                    |      | Units: mg/L |      |  |
| Analyte    | Result          | PQL     | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                 | %RPD | RPDLimit    | Qual |  |
| Mercury    | 0.0096          | 0.00040 | 0.01000        | 0           | 95.8 | 75        | 125                       | 2.25 | 20          |      |  |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |        |                           |           |             |                                    |          |             |      |          |      |
|------------|--------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB     | SampType: MBLK            |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | PBW    | Batch ID: R6314           |           |             | RunNo: 6314                        |          |             |      |          |      |
| Prep Date: |        | Analysis Date: 10/17/2012 |           |             | SeqNo: 181811                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | ND     | 0.10                      |           |             |                                    |          |             |      |          |      |
| Chloride   | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |
| Sulfate    | ND     | 0.50                      |           |             |                                    |          |             |      |          |      |

|            |        |      |                           |             |                                    |          |             |      |          |      |
|------------|--------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS    |      | SampType: LCS             |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | LCSW   |      | Batch ID: R6314           |             | RunNo: 6314                        |          |             |      |          |      |
| Prep Date: |        |      | Analysis Date: 10/17/2012 |             | SeqNo: 181812                      |          | Units: mg/L |      |          |      |
| Analyte    | Result | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.46   | 0.10 | 0.5000                    | 0           | 92.2                               | 90       | 110         |      |          |      |
| Chloride   | 5.0    | 0.50 | 5.000                     | 0           | 99.4                               | 90       | 110         |      |          |      |
| Sulfate    | 9.9    | 0.50 | 10.00                     | 0           | 99.4                               | 90       | 110         |      |          |      |

|            |                |                           |           |             |                                    |          |             |      |          |      |
|------------|----------------|---------------------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210811-018CMS | SampType: MS              |           |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | EB101512       | Batch ID: R6314           |           |             | RunNo: 6314                        |          |             |      |          |      |
| Prep Date: |                | Analysis Date: 10/17/2012 |           |             | SeqNo: 181814                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL                       | SPK value | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.46           | 0.10                      | 0.5000    | 0           | 91.9                               | 76.6     | 110         |      |          |      |
| Chloride   | 5.0            | 0.50                      | 5.000     | 0           | 99.6                               | 87.8     | 111         |      |          |      |
| Sulfate    | 9.8            | 0.50                      | 10.00     | 0           | 97.6                               | 84.6     | 122         |      |          |      |

|            |                 |      |                           |             |                                    |          |             |      |          |      |
|------------|-----------------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210811-018CMSD |      | SampType: MSD             |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | EB101512        |      | Batch ID: R6314           |             | RunNo: 6314                        |          |             |      |          |      |
| Prep Date: |                 |      | Analysis Date: 10/17/2012 |             | SeqNo: 181815                      |          | Units: mg/L |      |          |      |
| Analyte    | Result          | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 0.45            | 0.10 | 0.5000                    | 0           | 90.8                               | 76.6     | 110         | 1.21 | 20       |      |
| Chloride   | 4.8             | 0.50 | 5.000                     | 0           | 95.9                               | 87.8     | 111         | 3.74 | 20       |      |
| Sulfate    | 9.4             | 0.50 | 10.00                     | 0           | 94.1                               | 84.6     | 122         | 3.75 | 20       |      |

|            |                |      |                           |             |                                    |          |             |      |          |      |
|------------|----------------|------|---------------------------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210825-001BMS |      | SampType: MS              |             | TestCode: EPA Method 300.0: Anions |          |             |      |          |      |
| Client ID: | BatchQC        |      | Batch ID: R6314           |             | RunNo: 6314                        |          |             |      |          |      |
| Prep Date: |                |      | Analysis Date: 10/17/2012 |             | SeqNo: 181818                      |          | Units: mg/L |      |          |      |
| Analyte    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Fluoride   | 1.1            | 0.10 | 0.5000                    | 0.6296      | 88.2                               | 76.6     | 110         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |                |            |             |                          |          |           |        |          |      |  |
|------------|-----------------|----------------|------------|-------------|--------------------------|----------|-----------|--------|----------|------|--|
| Sample ID  | 1210825-001BMSD | SampType:      | MSD        | TestCode:   | EPA Method 300.0: Anions |          |           |        |          |      |  |
| Client ID: | BatchQC         | Batch ID:      | R6314      | RunNo:      | 6314                     |          |           |        |          |      |  |
| Prep Date: |                 | Analysis Date: | 10/17/2012 | SeqNo:      | 181819                   | Units:   | mg/L      |        |          |      |  |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD   | RPDLimit | Qual |  |
| Fluoride   | 1.1             | 0.10           | 0.5000     | 0.6296      | 88.1                     | 76.6     | 110       | 0.0510 | 20       |      |  |

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WO#: 1210811

29-Nov-12

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|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4369    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4369            |           |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                     | 10/17/2012 | Analysis Date: 10/18/2012 |           |             | SeqNo: 182210                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 10         |                           | 10.00     |             | 102                                               | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4369   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4369            |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                  | 10/17/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182211                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 44         | 10  | 50.00                     | 0           | 87.4                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.4        |     | 5.000                     |             | 87.6                                              | 77.6     | 140          |      |          |      |

|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4366    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4366            |           |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date:                     | 10/17/2012 | Analysis Date: 10/18/2012 |           |             | SeqNo: 182277                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 9.5        |                           | 10.00     |             | 94.8                                              | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4366   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4366            |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date:                  | 10/17/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182278                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 33         | 10  | 50.00                     | 0           | 66.7                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.3        |     | 5.000                     |             | 86.3                                              | 77.6     | 140          |      |          |      |

|                             |                |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210743-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | BatchQC        |     | Batch ID: 4366            |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date:                  | 10/17/2012     |     | Analysis Date: 10/18/2012 |             | SeqNo: 182280                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 31             | 9.9 | 49.55                     | 0           | 62.0                                              | 57.2     | 146          |      |          |      |
| Surr: DNOP                  | 4.1            |     | 4.955                     |             | 82.1                                              | 77.6     | 140          |      |          |      |

|            |                 |     |                           |             |                                                   |          |              |      |          |      |
|------------|-----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210743-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID: | BatchQC         |     | Batch ID: 4366            |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date: | 10/17/2012      |     | Analysis Date: 10/18/2012 |             | SeqNo: 182281                                     |          | Units: mg/Kg |      |          |      |
| Analyte    | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                 |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|-----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210743-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | BatchQC         |     | Batch ID: 4366            |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date:                  | 10/17/2012      |     | Analysis Date: 10/18/2012 |             | SeqNo: 182281                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 33              | 10  | 51.39                     | 0           | 63.3                                              | 57.2     | 146          | 5.63 | 24.5     |      |
| Surr: DNOP                  | 4.4             |     | 5.139                     |             | 85.7                                              | 77.6     | 140          | 0    | 0        |      |

|            |            |                           |           |             |                                                   |          |             |      |          |      |
|------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4397    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | PBS        | Batch ID: 4397            |           |             | RunNo: 6325                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 | Analysis Date: 10/18/2012 |           |             | SeqNo: 182283                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 10         |                           | 10.00     |             | 103                                               | 77.6     | 140         |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4397   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4397            |             | RunNo: 6325                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182284                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.3        |     | 5.000                     |             | 86.9                                              | 77.6     | 140         |      |          |      |

|                             |                    |                |            |             |                                         |          |           |      |          |      |
|-----------------------------|--------------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | 1210811-013CMS     | SampType:      | MS         | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID:                  | SWMU 1-15 (1.5-2') | Batch ID:      | 4369       | RunNo:      | 6331                                    |          |           |      |          |      |
| Prep Date:                  | 10/17/2012         | Analysis Date: | 10/18/2012 | SeqNo:      | 182453                                  | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result             | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 35                 | 10             | 50.51      | 0           | 68.3                                    | 57.2     | 146       |      |          |      |
| Surr: DNOP                  | 4.3                |                | 5.051      |             | 86.0                                    | 77.6     | 140       |      |          |      |

|                             |                    |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|--------------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210811-013CMSD    |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 1-15 (1.5-2') |     | Batch ID: 4369            |             | RunNo: 6331                                       |          |              |      |          |      |
| Prep Date:                  | 10/17/2012         |     | Analysis Date: 10/18/2012 |             | SeqNo: 182454                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 31                 | 9.6 | 48.03                     | 0           | 63.7                                              | 57.2     | 146          | 12.0 | 24.5     |      |
| Surr: DNOP                  | 4.0                |     | 4.803                     |             | 84.0                                              | 77.6     | 140          | 0    | 0        |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4404    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182984                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 9.6        |     | 10.00                     |             | 95.6                                              | 77.6     | 140         |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4404   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182985                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.5        |     | 5.000                     |             | 90.3                                              | 77.6     | 140         |      |          |      |

|            |                |     |                           |             |                                                   |          |             |      |          |      |
|------------|----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210819-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | BatchQC        |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012     |     | Analysis Date: 10/19/2012 |             | SeqNo: 183001                                     |          | Units: %REC |      |          |      |
| Analyte    | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.7            |     | 5.899                     |             | 79.7                                              | 77.6     | 140         |      |          |      |

|            |                 |     |                           |             |                                                   |          |             |      |          |      |
|------------|-----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210819-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | BatchQC         |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012      |     | Analysis Date: 10/19/2012 |             | SeqNo: 183002                                     |          | Units: %REC |      |          |      |
| Analyte    | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.9             |     | 6.148                     |             | 79.2                                              | 77.6     | 140         | 0    | 0        |      |

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# QC SUMMARY REPORT

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WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |     |                           |             |                                          |          |             |      |          |      |
|--------------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | MB-4383    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                     | PBW        |     | Batch ID: 4383            |             | RunNo: 6305                              |          |             |      |          |      |
| Prep Date:                     | 10/17/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 181999                            |          | Units: mg/L |      |          |      |
| Analyte                        | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 1.0 |                           |             |                                          |          |             |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 5.0 |                           |             |                                          |          |             |      |          |      |
| Surr: DNOP                     | 1.1        |     | 1.000                     |             | 107                                      | 79.5     | 166         |      |          |      |

|                             |            |     |                           |             |                                          |          |             |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | LCS-4383   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range |          |             |      |          |      |
| Client ID:                  | LCSW       |     | Batch ID: 4383            |             | RunNo: 6305                              |          |             |      |          |      |
| Prep Date:                  | 10/17/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 182000                            |          | Units: mg/L |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.8        | 1.0 | 5.000                     | 0           | 75.9                                     | 74       | 157         |      |          |      |
| Surr: DNOP                  | 0.48       |     | 0.5000                    |             | 96.6                                     | 79.5     | 166         |      |          |      |

|                             |            |     |                           |             |                                          |          |             |       |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|------------------------------------------|----------|-------------|-------|----------|------|
| Sample ID                   | LCSD-4383  |     | SampType: LCSD            |             | TestCode: EPA Method 8015B: Diesel Range |          |             |       |          |      |
| Client ID:                  | LCSS02     |     | Batch ID: 4383            |             | RunNo: 6305                              |          |             |       |          |      |
| Prep Date:                  | 10/17/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 182001                            |          | Units: mg/L |       |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                     | LowLimit | HighLimit   | %RPD  | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.8        | 1.0 | 5.000                     | 0           | 75.5                                     | 74       | 157         | 0.595 | 23       |      |
| Surr: DNOP                  | 0.47       |     | 0.5000                    |             | 94.9                                     | 79.5     | 166         | 0     | 0        |      |

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WO#: 1210811

29-Nov-12

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Project: SWMU NO.1

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4420    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        |     | Batch ID: 4420            |             | RunNo: 6401                                |          |              |      |          |      |
| Prep Date:                    | 10/19/2012 |     | Analysis Date: 10/22/2012 |             | SeqNo: 184413                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 930        |     | 1000                      |             | 93.3                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4420   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4420            |             | RunNo: 6401                                |          |              |      |          |      |
| Prep Date:                    | 10/19/2012 |     | Analysis Date: 10/22/2012 |             | SeqNo: 184414                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23         | 5.0 | 25.00                     | 0           | 93.7                                       | 74       | 117          |      |          |      |
| Surr: BFB                     | 990        |     | 1000                      |             | 99.5                                       | 84       | 116          |      |          |      |

|                               |                |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210916-002AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: 4420            |             | RunNo: 6401                                |          |              |      |          |      |
| Prep Date:                    | 10/19/2012     |     | Analysis Date: 10/22/2012 |             | SeqNo: 184418                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 35             | 4.8 | 24.06                     | 1.798       | 137                                        | 70       | 130          |      |          | S    |
| Surr: BFB                     | 1100           |     | 962.5                     |             | 115                                        | 84       | 116          |      |          |      |

|                               |                 |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210916-002AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: 4420            |             | RunNo: 6401                                |          |              |      |          |      |
| Prep Date:                    | 10/19/2012      |     | Analysis Date: 10/22/2012 |             | SeqNo: 184419                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 36              | 4.8 | 24.02                     | 1.798       | 144                                        | 70       | 130          | 4.59 | 22.1     | S    |
| Surr: BFB                     | 1100            |     | 960.6                     |             | 117                                        | 84       | 116          | 0    | 0        | S    |

|                               |        |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 5ML RB |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS    |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |        |     | Analysis Date: 10/24/2012 |             | SeqNo: 186219                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 920    |     | 1000                      |             | 91.7                                       | 84       | 116          |      |          |      |

|                               |               |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|---------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS          |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |               |     | Analysis Date: 10/24/2012 |             | SeqNo: 186225                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result        | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24            | 5.0 | 25.00                     | 0           | 94.5                                       | 74       | 117          |      |          |      |
| Surr: BFB                     | 930           |     | 1000                      |             | 93.1                                       | 84       | 116          |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |                    |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210811-011BMSD    |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | SWMU 1-14 (1.5-2') |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |                    |     | Analysis Date: 10/24/2012 |             | SeqNo: 186249                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 17                 | 5.0 | 15.90                     | 0           | 110                                        | 70       | 130          | 12.7 | 22.1     |      |
| Surr: BFB                     | 590                |     | 636.0                     |             | 93.2                                       | 84       | 116          | 0    | 0        |      |

|                               |                    |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210811-011BMS     |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | SWMU 1-14 (1.5-2') |     | Batch ID: R6457           |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    |                    |     | Analysis Date: 10/25/2012 |             | SeqNo: 187647                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result             | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 15                 | 5.0 | 15.91                     | 0           | 96.6                                       | 70       | 130          |      |          |      |
| Surr: BFB                     | 650                |     | 636.4                     |             | 102                                        | 84       | 116          |      |          |      |

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|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4361    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4361            |             | RunNo: 6338                               |          |              |      |          |      |
| Prep Date:                     | 10/17/2012 |         | Analysis Date: 10/17/2012 |             | SeqNo: 182426                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4361    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4361            |             | RunNo: 6338                               |          |              |      |          |      |
| Prep Date:                  | 10/17/2012 |         | Analysis Date: 10/17/2012 |             | SeqNo: 182426                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 47.9       |         | 50.00                     |             | 95.7                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 45.7       |         | 50.00                     |             | 91.4                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 53.2       |         | 50.00                     |             | 106                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 50.2       |         | 50.00                     |             | 100                                       | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4361   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4361            |             | RunNo: 6338                               |          |              |      |          |      |
| Prep Date:                  | 10/17/2012 |      | Analysis Date: 10/17/2012 |             | SeqNo: 182428                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 7.10       | 1.00 | 8.000                     | 0           | 88.8                                      | 60       | 140          |      |          |      |
| Toluene                     | 6.78       | 1.00 | 8.000                     | 0           | 84.8                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 8.05       | 1.00 | 8.000                     | 0           | 101                                       | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 8.50       | 1.00 | 8.000                     | 0           | 106                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 6.66       | 1.00 | 8.000                     | 0           | 83.2                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 47.3       |      | 50.00                     |             | 94.6                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 43.0       |      | 50.00                     |             | 86.1                                      | 70       | 130          |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | lcs-4361   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4361            |             | RunNo: 6338                               |          |              |      |          |      |
| Prep Date:                 | 10/17/2012 |     | Analysis Date: 10/17/2012 |             | SeqNo: 182428                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 52.5       |     | 50.00                     |             | 105                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 43.8       |     | 50.00                     |             | 87.6                                      | 70       | 130          |      |          |      |

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4393    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4393            |             |      | RunNo: 6360                               |           |              |          |      |
| Prep Date:                  | 10/18/2012 |         | Analysis Date: 10/18/2012 |             |      | SeqNo: 182928                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| 1,4-Dichlorobenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dichlorodifluoromethane     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethane          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloropropene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |      |                                           |           |              |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.1       |         | 50.00                     |             | 92.1 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 44.8       |         | 50.00                     |             | 89.6 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 53.0       |         | 50.00                     |             | 106  | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 42.4       |         | 50.00                     |             | 84.8 | 70                                        | 130       |              |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | Ics-4393   |      | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4393            |             |      | RunNo: 6360                               |           |              |          |      |
| Prep Date:                  | 10/18/2012 |      | Analysis Date: 10/18/2012 |             |      | SeqNo: 182930                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                     | 8.87       | 1.00 | 10.00                     | 0           | 88.7 | 60                                        | 140       |              |          |      |
| Toluene                     | 8.50       | 1.00 | 10.00                     | 0           | 85.0 | 60                                        | 140       |              |          |      |
| Chlorobenzene               | 9.38       | 1.00 | 10.00                     | 0           | 93.8 | 60                                        | 140       |              |          |      |
| 1,1-Dichloroethene          | 11.0       | 1.00 | 10.00                     | 0           | 110  | 60                                        | 140       |              |          |      |
| Trichloroethene (TCE)       | 7.70       | 1.00 | 10.00                     | 0           | 77.0 | 60                                        | 140       |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 44.9       |      | 50.00                     |             | 89.8 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 40.9       |      | 50.00                     |             | 81.7 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 50.4       |      | 50.00                     |             | 101  | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 41.1       |      | 50.00                     |             | 82.2 | 70                                        | 130       |              |          |      |

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29-Nov-12

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|                                |        |                           |           |             |      |                                       |             |      |          |      |
|--------------------------------|--------|---------------------------|-----------|-------------|------|---------------------------------------|-------------|------|----------|------|
| Sample ID                      | 5ml rb | SampType: MBLK            |           |             |      | TestCode: EPA Method 8260B: VOLATILES |             |      |          |      |
| Client ID:                     | PBW    | Batch ID: R6432           |           |             |      | RunNo: 6432                           |             |      |          |      |
| Prep Date:                     |        | Analysis Date: 10/19/2012 |           |             |      | SeqNo: 184843                         | Units: µg/L |      |          |      |
| Analyte                        | Result | PQL                       | SPK value | SPK Ref Val | %REC | LowLimit                              | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Toluene                        | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Ethylbenzene                   | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Naphthalene                    | ND     | 2.0                       |           |             |      |                                       |             |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                       |           |             |      |                                       |             |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                       |           |             |      |                                       |             |      |          |      |
| Acetone                        | ND     | 10                        |           |             |      |                                       |             |      |          |      |
| Bromobenzene                   | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Bromodichloromethane           | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Bromoform                      | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Bromomethane                   | ND     | 3.0                       |           |             |      |                                       |             |      |          |      |
| 2-Butanone                     | ND     | 10                        |           |             |      |                                       |             |      |          |      |
| Carbon disulfide               | ND     | 10                        |           |             |      |                                       |             |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Chlorobenzene                  | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Chloroethane                   | ND     | 2.0                       |           |             |      |                                       |             |      |          |      |
| Chloroform                     | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Chloromethane                  | ND     | 3.0                       |           |             |      |                                       |             |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0                       |           |             |      |                                       |             |      |          |      |
| Dibromochloromethane           | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Dibromomethane                 | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Dichlorodifluoromethane        | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,1-Dichloroethane             | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,1-Dichloroethene             | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,2-Dichloropropane            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 1,3-Dichloropropane            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| 2,2-Dichloropropane            | ND     | 2.0                       |           |             |      |                                       |             |      |          |      |
| 1,1-Dichloropropene            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |
| Hexachlorobutadiene            | ND     | 1.0                       |           |             |      |                                       |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.1

| Sample ID <b>5ml rb</b>     | SampType: <b>MBLK</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R6432</b>           |     |           | RunNo: <b>6432</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184843</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| 2-Hexanone                  | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Isopropylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Isopropyltoluene          | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Methyl-2-pentanone        | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Methylene Chloride          | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Butylbenzene              | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Propylbenzene             | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| sec-Butylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Styrene                     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| tert-Butylbenzene           | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,2-DCE               | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,3-Dichloropropene   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichloroethene (TCE)       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichlorofluoromethane      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichloropropane      | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Vinyl chloride              | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Xylenes, Total              | ND                               | 1.5 |           |                                              |      |                    |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 11                               |     | 10.00     |                                              | 105  | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.5                              |     | 10.00     |                                              | 95.3 | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10                               |     | 10.00     |                                              | 103  | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 10                               |     | 10.00     |                                              | 102  | 70                 | 130       |      |          |      |

| Sample ID <b>100ng lcs</b>  | SampType: <b>LCS</b>             |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>R6432</b>           |     |           | RunNo: <b>6432</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184845</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | 18                               | 1.0 | 20.00     | 0                                            | 90.1 | 70                 | 130       |      |          |      |
| Toluene                     | 20                               | 1.0 | 20.00     | 0                                            | 102  | 80                 | 120       |      |          |      |
| Chlorobenzene               | 19                               | 1.0 | 20.00     | 0                                            | 94.7 | 70                 | 130       |      |          |      |
| 1,1-Dichloroethene          | 20                               | 1.0 | 20.00     | 0                                            | 98.8 | 73.7               | 122       |      |          |      |
| Trichloroethene (TCE)       | 19                               | 1.0 | 20.00     | 0                                            | 94.5 | 70                 | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.1                              |     | 10.00     |                                              | 90.7 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 11                               |     | 10.00     |                                              | 108  | 70                 | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |           |     |                           |             |                                       |          |             |      |          |      |
|----------------------------|-----------|-----|---------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | 100ng lcs |     | SampType: LCS             |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                 | LCSW      |     | Batch ID: R6432           |             | RunNo: 6432                           |          |             |      |          |      |
| Prep Date:                 |           |     | Analysis Date: 10/19/2012 |             | SeqNo: 184845                         |          | Units: µg/L |      |          |      |
| Analyte                    | Result    | PQL | SPK value                 | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 9.9       |     | 10.00                     |             | 99.1                                  | 70       | 130         |      |          |      |
| Surr: Toluene-d8           | 9.7       |     | 10.00                     |             | 96.6                                  | 70       | 130         |      |          |      |

|                                |        |                           |           |             |                                       |          |             |      |          |      |
|--------------------------------|--------|---------------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                      | b6     | SampType: MBLK            |           |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                     | PBW    | Batch ID: R6432           |           |             | RunNo: 6432                           |          |             |      |          |      |
| Prep Date:                     |        | Analysis Date: 10/19/2012 |           |             | SeqNo: 184881                         |          | Units: µg/L |      |          |      |
| Analyte                        | Result | PQL                       | SPK value | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                        | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Toluene                        | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Ethylbenzene                   | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2,4-Trimethylbenzene         | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3,5-Trimethylbenzene         | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Naphthalene                    | ND     | 2.0                       |           |             |                                       |          |             |      |          |      |
| 1-Methylnaphthalene            | ND     | 4.0                       |           |             |                                       |          |             |      |          |      |
| 2-Methylnaphthalene            | ND     | 4.0                       |           |             |                                       |          |             |      |          |      |
| Acetone                        | ND     | 10                        |           |             |                                       |          |             |      |          |      |
| Bromobenzene                   | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromodichloromethane           | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromoform                      | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Bromomethane                   | ND     | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Butanone                     | ND     | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon disulfide               | ND     | 10                        |           |             |                                       |          |             |      |          |      |
| Carbon Tetrachloride           | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chlorobenzene                  | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloroethane                   | ND     | 2.0                       |           |             |                                       |          |             |      |          |      |
| Chloroform                     | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Chloromethane                  | ND     | 3.0                       |           |             |                                       |          |             |      |          |      |
| 2-Chlorotoluene                | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 4-Chlorotoluene                | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,2-DCE                    | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| cis-1,3-Dichloropropene        | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND     | 2.0                       |           |             |                                       |          |             |      |          |      |
| Dibromochloromethane           | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| Dibromomethane                 | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,2-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,3-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |
| 1,4-Dichlorobenzene            | ND     | 1.0                       |           |             |                                       |          |             |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

| Sample ID <b>b6</b>         | SampType: <b>MBLK</b>            |     |           | TestCode: <b>EPA Method 8260B: VOLATILES</b> |      |                    |           |      |          |      |
|-----------------------------|----------------------------------|-----|-----------|----------------------------------------------|------|--------------------|-----------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R6432</b>           |     |           | RunNo: <b>6432</b>                           |      |                    |           |      |          |      |
| Prep Date:                  | Analysis Date: <b>10/19/2012</b> |     |           | SeqNo: <b>184881</b>                         |      | Units: <b>µg/L</b> |           |      |          |      |
| Analyte                     | Result                           | PQL | SPK value | SPK Ref Val                                  | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Dichlorodifluoromethane     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1-Dichloroethane          | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1-Dichloroethene          | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2-Dichloropropane         | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,3-Dichloropropane         | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 2,2-Dichloropropane         | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| 1,1-Dichloropropene         | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Hexachlorobutadiene         | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 2-Hexanone                  | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Isopropylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Isopropyltoluene          | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 4-Methyl-2-pentanone        | ND                               | 10  |           |                                              |      |                    |           |      |          |      |
| Methylene Chloride          | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Butylbenzene              | ND                               | 3.0 |           |                                              |      |                    |           |      |          |      |
| n-Propylbenzene             | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| sec-Butylbenzene            | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Styrene                     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| tert-Butylbenzene           | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Tetrachloroethene (PCE)     | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,2-DCE               | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| trans-1,3-Dichloropropene   | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,4-Trichlorobenzene      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,1-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,1,2-Trichloroethane       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichloroethene (TCE)       | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Trichlorofluoromethane      | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| 1,2,3-Trichloropropane      | ND                               | 2.0 |           |                                              |      |                    |           |      |          |      |
| Vinyl chloride              | ND                               | 1.0 |           |                                              |      |                    |           |      |          |      |
| Xylenes, Total              | ND                               | 1.5 |           |                                              |      |                    |           |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.9                              |     | 10.00     |                                              | 98.6 | 70                 | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.9                              |     | 10.00     |                                              | 98.6 | 70                 | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10                               |     | 10.00     |                                              | 105  | 70                 | 130       |      |          |      |
| Surr: Toluene-d8            | 10                               |     | 10.00     |                                              | 101  | 70                 | 130       |      |          |      |

### Qualifiers:

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E Value above quantitation range  
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B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                |     |                           |             |                                       |          |             |      |          |      |
|-----------------------------|----------------|-----|---------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 1210828-005ams |     | SampType: MS              |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | BatchQC        |     | Batch ID: R6432           |             | RunNo: 6432                           |          |             |      |          |      |
| Prep Date:                  |                |     | Analysis Date: 10/20/2012 |             | SeqNo: 184887                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 19             | 1.0 | 20.00                     | 0           | 95.4                                  | 66.8     | 128         |      |          |      |
| Toluene                     | 22             | 1.0 | 20.00                     | 0           | 111                                   | 70       | 130         |      |          |      |
| Chlorobenzene               | 20             | 1.0 | 20.00                     | 0           | 99.8                                  | 70       | 130         |      |          |      |
| 1,1-Dichloroethene          | 22             | 1.0 | 20.00                     | 0           | 108                                   | 70       | 130         |      |          |      |
| Trichloroethene (TCE)       | 19             | 1.0 | 20.00                     | 0           | 96.7                                  | 70       | 130         |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.8            |     | 10.00                     |             | 98.0                                  | 70       | 130         |      |          |      |
| Surr: 4-Bromofluorobenzene  | 10             |     | 10.00                     |             | 101                                   | 70       | 130         |      |          |      |
| Surr: Dibromofluoromethane  | 10             |     | 10.00                     |             | 104                                   | 70       | 130         |      |          |      |
| Surr: Toluene-d8            | 9.9            |     | 10.00                     |             | 99.2                                  | 70       | 130         |      |          |      |

|                             |                 |     |                           |             |                                       |          |             |      |          |      |
|-----------------------------|-----------------|-----|---------------------------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Sample ID                   | 1210828-005amsd |     | SampType: MSD             |             | TestCode: EPA Method 8260B: VOLATILES |          |             |      |          |      |
| Client ID:                  | BatchQC         |     | Batch ID: R6432           |             | RunNo: 6432                           |          |             |      |          |      |
| Prep Date:                  |                 |     | Analysis Date: 10/20/2012 |             | SeqNo: 184888                         |          | Units: µg/L |      |          |      |
| Analyte                     | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                  | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Benzene                     | 18              | 1.0 | 20.00                     | 0           | 91.8                                  | 66.8     | 128         | 3.88 | 16.7     |      |
| Toluene                     | 21              | 1.0 | 20.00                     | 0           | 107                                   | 70       | 130         | 3.39 | 18.7     |      |
| Chlorobenzene               | 19              | 1.0 | 20.00                     | 0           | 96.3                                  | 70       | 130         | 3.62 | 19.5     |      |
| 1,1-Dichloroethene          | 20              | 1.0 | 20.00                     | 0           | 97.6                                  | 70       | 130         | 9.75 | 16.7     |      |
| Trichloroethene (TCE)       | 19              | 1.0 | 20.00                     | 0           | 94.2                                  | 70       | 130         | 2.61 | 17.5     |      |
| Surr: 1,2-Dichloroethane-d4 | 9.6             |     | 10.00                     |             | 95.8                                  | 70       | 130         | 0    | 0        |      |
| Surr: 4-Bromofluorobenzene  | 11              |     | 10.00                     |             | 107                                   | 70       | 130         | 0    | 0        |      |
| Surr: Dibromofluoromethane  | 9.7             |     | 10.00                     |             | 96.8                                  | 70       | 130         | 0    | 0        |      |
| Surr: Toluene-d8            | 9.8             |     | 10.00                     |             | 98.1                                  | 70       | 130         | 0    | 0        |      |

|                             |                           |                 |           |               |                                       |             |           |      |          |      |
|-----------------------------|---------------------------|-----------------|-----------|---------------|---------------------------------------|-------------|-----------|------|----------|------|
| Sample ID                   | Ics2                      | SampType: LCS   |           |               | TestCode: EPA Method 8260B: VOLATILES |             |           |      |          |      |
| Client ID:                  | LCSW                      | Batch ID: R6432 |           |               | RunNo: 6432                           |             |           |      |          |      |
| Prep Date:                  | Analysis Date: 10/20/2012 |                 |           | SeqNo: 189689 |                                       | Units: µg/L |           |      |          |      |
| Analyte                     | Result                    | PQL             | SPK value | SPK Ref Val   | %REC                                  | LowLimit    | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                     | 19                        | 1.0             | 20.00     | 0             | 95.1                                  | 70          | 130       |      |          |      |
| Toluene                     | 20                        | 1.0             | 20.00     | 0             | 100                                   | 80          | 120       |      |          |      |
| Chlorobenzene               | 20                        | 1.0             | 20.00     | 0             | 99.3                                  | 70          | 130       |      |          |      |
| 1,1-Dichloroethene          | 21                        | 1.0             | 20.00     | 0             | 106                                   | 73.7        | 122       |      |          |      |
| Trichloroethene (TCE)       | 21                        | 1.0             | 20.00     | 0             | 107                                   | 70          | 130       |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 9.8                       |                 | 10.00     |               | 97.8                                  | 70          | 130       |      |          |      |
| Surr: 4-Bromofluorobenzene  | 9.8                       |                 | 10.00     |               | 98.0                                  | 70          | 130       |      |          |      |
| Surr: Dibromofluoromethane  | 10                        |                 | 10.00     |               | 100                                   | 70          | 130       |      |          |      |
| Surr: Toluene-d8            | 9.4                       |                 | 10.00     |               | 94.3                                  | 70          | 130       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |                |            |             |                                 |          |           |      |          |      |
|-----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | mb-4400    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                  | PBS        | Batch ID:      | 4400       | RunNo:      | 6384                            |          |           |      |          |      |
| Prep Date:                  | 10/18/2012 | Analysis Date: | 10/21/2012 | SeqNo:      | 183689                          | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Acenaphthylene              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Aniline                     | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Anthracene                  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Azobenzene                  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benz(a)anthracene           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(a)pyrene              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Benzoic acid                | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Benzyl alcohol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Butyl benzyl phthalate      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Carbazole                   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Chloroaniline             | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2-Chloronaphthalene         | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| 2-Chlorophenol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Chrysene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Di-n-butyl phthalate        | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Di-n-octyl phthalate        | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dibenzofuran                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| Diethyl phthalate           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dimethyl phthalate          | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30           |            |             |                                 |          |           |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                |                   |      |           |                                        |      |                     |      |
|----------------------------|-------------------|------|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID                  | <b>mb-4400</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID:      | <b>4400</b>       |      | RunNo:    | <b>6384</b>                            |      |                     |      |
| Prep Date:                 | <b>10/18/2012</b> |      | Analysis Date: | <b>10/21/2012</b> |      | SeqNo:    | <b>183689</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte                    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |
| Fluoranthene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Fluorene                   | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobenzene          | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobutadiene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachloroethane           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Isophorone                 | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylphenol             | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 3+4-Methylphenol           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Naphthalene                | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 3-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitroaniline             | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Nitrobenzene               | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitrophenol              | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitrophenol              | ND                | 0.25 |                |                   |      |           |                                        |      |                     |      |
| Pentachlorophenol          | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Phenanthrene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Phenol                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyrene                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyridine                   | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Surr: 2,4,6-Tribromophenol | 3.0               |      | 3.330          |                   | 89.4 | 21.3      | 145                                    |      |                     |      |
| Surr: 2-Fluorobiphenyl     | 1.6               |      | 1.670          |                   | 94.4 | 20        | 131                                    |      |                     |      |
| Surr: 2-Fluorophenol       | 2.9               |      | 3.330          |                   | 88.5 | 11.9      | 130                                    |      |                     |      |
| Surr: 4-Terphenyl-d14      | 1.3               |      | 1.670          |                   | 79.3 | 25.1      | 149                                    |      |                     |      |
| Surr: Nitrobenzene-d5      | 1.7               |      | 1.670          |                   | 99.1 | 25.6      | 137                                    |      |                     |      |
| Surr: Phenol-d5            | 3.1               |      | 3.330          |                   | 91.7 | 20.3      | 132                                    |      |                     |      |

|            |                   |     |                |                   |      |           |                                        |      |                     |      |
|------------|-------------------|-----|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID  | <b>lcs-4400</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |     | Batch ID:      | <b>4400</b>       |      | RunNo:    | <b>6384</b>                            |      |                     |      |
| Prep Date: | <b>10/18/2012</b> |     | Analysis Date: | <b>10/21/2012</b> |      | SeqNo:    | <b>183690</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |              |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4400   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       | Batch ID: 4400            |           |             | RunNo: 6384                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012 | Analysis Date: 10/21/2012 |           |             | SeqNo: 183690                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.4        | 0.20                      | 1.670     | 0           | 84.0                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.7        | 0.50                      | 3.330     | 0           | 81.7                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.5        | 0.20                      | 3.330     | 0           | 76.1                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20                      | 1.670     | 0           | 75.4                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.5        | 0.50                      | 1.670     | 0           | 89.7                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20                      | 1.670     | 0           | 83.6                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.5        | 0.25                      | 3.330     | 0           | 74.6                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40                      | 3.330     | 0           | 64.2                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5        | 0.20                      | 3.330     | 0           | 74.2                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.3        | 0.20                      | 1.670     | 0           | 76.3                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4        | 0.20                      | 1.670     | 0           | 85.3                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.6        |                           | 3.330     |             | 109                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.8        |                           | 1.670     |             | 109                                       | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 3.1        |                           | 3.330     |             | 91.8                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5        |                           | 1.670     |             | 87.1                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.8        |                           | 1.670     |             | 108                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.2        |                           | 3.330     |             | 95.9                                      | 20.3     | 132          |      |          |      |

|                            |                   |                           |           |             |                                           |          |              |      |          |      |
|----------------------------|-------------------|---------------------------|-----------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210811-002CMS    | SampType: MS              |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | SWMU 1-9 (1.5-2') | Batch ID: 4400            |           |             | RunNo: 6384                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012        | Analysis Date: 10/22/2012 |           |             | SeqNo: 183711                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result            | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2               | 0.20                      | 1.673     | 0           | 71.4                                      | 25.6     | 142          |      |          |      |
| 4-Chloro-3-methylphenol    | 2.4               | 0.50                      | 3.337     | 0           | 71.1                                      | 63.7     | 100          |      |          |      |
| 2-Chlorophenol             | 2.4               | 0.20                      | 3.337     | 0           | 72.7                                      | 22.2     | 126          |      |          |      |
| 1,4-Dichlorobenzene        | 1.2               | 0.20                      | 1.673     | 0           | 70.8                                      | 12.4     | 115          |      |          |      |
| 2,4-Dinitrotoluene         | 1.3               | 0.50                      | 1.673     | 0           | 78.0                                      | 14.9     | 142          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4               | 0.20                      | 1.673     | 0           | 81.4                                      | 13.9     | 136          |      |          |      |
| 4-Nitrophenol              | 2.4               | 0.25                      | 3.337     | 0.09450     | 69.3                                      | 36.7     | 130          |      |          |      |
| Pentachlorophenol          | 2.2               | 0.40                      | 3.337     | 0           | 65.2                                      | 15.8     | 113          |      |          |      |
| Phenol                     | 2.3               | 0.20                      | 3.337     | 0           | 69.9                                      | 25.1     | 124          |      |          |      |
| Pyrene                     | 1.1               | 0.20                      | 1.673     | 0           | 68.6                                      | 35.8     | 124          |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4               | 0.20                      | 1.673     | 0           | 84.8                                      | 30       | 113          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0               |                           | 3.337     |             | 89.9                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |                           | 1.673     |             | 88.8                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.7               |                           | 3.337     |             | 80.1                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3               |                           | 1.673     |             | 76.2                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.8               |                           | 1.673     |             | 105                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0               |                           | 3.337     |             | 89.7                                      | 20.3     | 132          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |                |            |             |                                 |          |           |      |          |      |
|----------------------------|-------------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                  | 1210811-002CMSD   | SampType:      | MSD        | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                 | SWMU 1-9 (1.5-2') | Batch ID:      | 4400       | RunNo:      | 6384                            |          |           |      |          |      |
| Prep Date:                 | 10/18/2012        | Analysis Date: | 10/22/2012 | SeqNo:      | 183712                          | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result            | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2               | 0.20           | 1.674      | 0           | 73.4                            | 25.6     | 142       | 2.79 | 22       |      |
| 4-Chloro-3-methylphenol    | 2.3               | 0.50           | 3.338      | 0           | 68.2                            | 63.7     | 100       | 3.99 | 27.3     |      |
| 2-Chlorophenol             | 2.4               | 0.20           | 3.338      | 0           | 71.5                            | 22.2     | 126       | 1.58 | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1               | 0.20           | 1.674      | 0           | 66.1                            | 12.4     | 115       | 6.82 | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3               | 0.50           | 1.674      | 0           | 80.4                            | 14.9     | 142       | 3.08 | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3               | 0.20           | 1.674      | 0           | 75.8                            | 13.9     | 136       | 7.08 | 22.6     |      |
| 4-Nitrophenol              | 2.5               | 0.25           | 3.338      | 0.09450     | 73.3                            | 36.7     | 130       | 5.48 | 20       |      |
| Pentachlorophenol          | 2.1               | 0.40           | 3.338      | 0           | 62.8                            | 15.8     | 113       | 3.74 | 27.1     |      |
| Phenol                     | 2.1               | 0.20           | 3.338      | 0           | 64.0                            | 25.1     | 124       | 8.86 | 32.2     |      |
| Pyrene                     | 1.2               | 0.20           | 1.674      | 0           | 71.6                            | 35.8     | 124       | 4.33 | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4               | 0.20           | 1.674      | 0           | 81.2                            | 30       | 113       | 4.27 | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 2.8               |                | 3.338      |             | 83.7                            | 21.3     | 145       | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5               |                | 1.674      |             | 90.7                            | 20       | 131       | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 2.6               |                | 3.338      |             | 79.2                            | 11.9     | 130       | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.3               |                | 1.674      |             | 76.3                            | 25.1     | 149       | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 1.6               |                | 1.674      |             | 96.8                            | 25.6     | 137       | 0    | 0        |      |
| Surr: Phenol-d5            | 2.9               |                | 3.338      |             | 85.8                            | 20.3     | 132       | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |     |                                  |             |                                                  |          |                    |      |          |      |
|-----------------------------|-------------------|-----|----------------------------------|-------------|--------------------------------------------------|----------|--------------------|------|----------|------|
| Sample ID                   | <b>mb-4411</b>    |     | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                    |      |          |      |
| Client ID:                  | <b>PBW</b>        |     | Batch ID: <b>4411</b>            |             | RunNo: <b>6416</b>                               |          |                    |      |          |      |
| Prep Date:                  | <b>10/19/2012</b> |     | Analysis Date: <b>10/22/2012</b> |             | SeqNo: <b>184532</b>                             |          | Units: <b>µg/L</b> |      |          |      |
| Analyte                     | Result            | PQL | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit          | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Acenaphthylene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Aniline                     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Anthracene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Azobenzene                  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benz(a)anthracene           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(a)pyrene              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(b)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(g,h,i)perylene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzo(k)fluoranthene        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Benzoic acid                | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| Benzyl alcohol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethoxy)methane  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroethyl)ether     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-chloroisopropyl)ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Bromophenyl phenyl ether  | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Butyl benzyl phthalate      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Carbazole                   | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chloroaniline             | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chloronaphthalene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2-Chlorophenol              | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Chrysene                    | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-butyl phthalate        | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Di-n-octyl phthalate        | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dibenzofuran                | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Diethyl phthalate           | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| Dimethyl phthalate          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dichlorophenol          | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dimethylphenol          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrophenol           | ND                | 20  |                                  |             |                                                  |          |                    |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 10  |                                  |             |                                                  |          |                    |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |      |                                           |           |             |          |      |
|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|-------------|----------|------|
| Sample ID                  | mb-4411    |     | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |             |          |      |
| Client ID:                 | PBW        |     | Batch ID: 4411            |             |      | RunNo: 6416                               |           |             |          |      |
| Prep Date:                 | 10/19/2012 |     | Analysis Date: 10/22/2012 |             |      | SeqNo: 184532                             |           | Units: µg/L |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD        | RPDLimit | Qual |
| Fluoranthene               | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Fluorene                   | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Hexachlorobenzene          | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Hexachlorobutadiene        | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Hexachlorocyclopentadiene  | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Hexachloroethane           | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Indeno(1,2,3-cd)pyrene     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Isophorone                 | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 1-Methylnaphthalene        | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2-Methylnaphthalene        | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2-Methylphenol             | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 3+4-Methylphenol           | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| N-Nitrosodi-n-propylamine  | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| N-Nitrosodimethylamine     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| N-Nitrosodiphenylamine     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Naphthalene                | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2-Nitroaniline             | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 3-Nitroaniline             | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 4-Nitroaniline             | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Nitrobenzene               | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2-Nitrophenol              | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 4-Nitrophenol              | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Pentachlorophenol          | ND         | 20  |                           |             |      |                                           |           |             |          |      |
| Phenanthrene               | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Phenol                     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Pyrene                     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Pyridine                   | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 1,2,4-Trichlorobenzene     | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2,4,5-Trichlorophenol      | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| 2,4,6-Trichlorophenol      | ND         | 10  |                           |             |      |                                           |           |             |          |      |
| Surr: 2,4,6-Tribromophenol | 180        |     | 200.0                     |             | 89.0 | 42.9                                      | 124       |             |          |      |
| Surr: 2-Fluorobiphenyl     | 74         |     | 100.0                     |             | 73.7 | 40                                        | 108       |             |          |      |
| Surr: 2-Fluorophenol       | 130        |     | 200.0                     |             | 63.3 | 23.6                                      | 94.8      |             |          |      |
| Surr: 4-Terphenyl-d14      | 75         |     | 100.0                     |             | 74.5 | 41.9                                      | 103       |             |          |      |
| Surr: Nitrobenzene-d5      | 91         |     | 100.0                     |             | 90.8 | 42.6                                      | 114       |             |          |      |
| Surr: Phenol-d5            | 100        |     | 200.0                     |             | 49.9 | 20.3                                      | 74.7      |             |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |             |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|-------------|------|----------|------|
| Sample ID                  | Ics-4411   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |             |      |          |      |
| Client ID:                 | LCSW       | Batch ID: 4411            |           |             | RunNo: 6416                               |          |             |      |          |      |
| Prep Date:                 | 10/19/2012 | Analysis Date: 10/22/2012 |           |             | SeqNo: 184533                             |          | Units: µg/L |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Acenaphthene               | 69         | 10                        | 100.0     | 0           | 69.3                                      | 43.3     | 92          |      |          |      |
| 4-Chloro-3-methylphenol    | 150        | 10                        | 200.0     | 0           | 72.7                                      | 46.3     | 108         |      |          |      |
| 2-Chlorophenol             | 130        | 10                        | 200.0     | 0           | 65.3                                      | 38       | 99.3        |      |          |      |
| 1,4-Dichlorobenzene        | 62         | 10                        | 100.0     | 0           | 61.6                                      | 30.8     | 80.6        |      |          |      |
| 2,4-Dinitrotoluene         | 73         | 10                        | 100.0     | 0           | 73.1                                      | 46.1     | 117         |      |          |      |
| N-Nitrosodi-n-propylamine  | 73         | 10                        | 100.0     | 0           | 73.0                                      | 39.3     | 110         |      |          |      |
| 4-Nitrophenol              | 80         | 10                        | 200.0     | 0           | 39.8                                      | 29.8     | 67          |      |          |      |
| Pentachlorophenol          | 110        | 20                        | 200.0     | 0           | 55.3                                      | 32.2     | 95.7        |      |          |      |
| Phenol                     | 78         | 10                        | 200.0     | 0           | 39.2                                      | 27       | 64.8        |      |          |      |
| Pyrene                     | 72         | 10                        | 100.0     | 0           | 71.5                                      | 44.7     | 97.3        |      |          |      |
| 1,2,4-Trichlorobenzene     | 73         | 10                        | 100.0     | 0           | 72.7                                      | 36.6     | 86.7        |      |          |      |
| Surr: 2,4,6-Tribromophenol | 170        |                           | 200.0     |             | 87.4                                      | 42.9     | 124         |      |          |      |
| Surr: 2-Fluorobiphenyl     | 81         |                           | 100.0     |             | 81.3                                      | 40       | 108         |      |          |      |
| Surr: 2-Fluorophenol       | 120        |                           | 200.0     |             | 60.0                                      | 23.6     | 94.8        |      |          |      |
| Surr: 4-Terphenyl-d14      | 74         |                           | 100.0     |             | 74.1                                      | 41.9     | 103         |      |          |      |
| Surr: Nitrobenzene-d5      | 85         |                           | 100.0     |             | 84.8                                      | 42.6     | 114         |      |          |      |
| Surr: Phenol-d5            | 100        |                           | 200.0     |             | 50.3                                      | 20.3     | 74.7        |      |          |      |

|                            |            |     |                           |             |      |                                           |           |             |          |      |  |
|----------------------------|------------|-----|---------------------------|-------------|------|-------------------------------------------|-----------|-------------|----------|------|--|
| Sample ID                  | Icsd-4411  |     | SampType: LCSD            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |             |          |      |  |
| Client ID:                 | LCSS02     |     | Batch ID: 4411            |             |      | RunNo: 6416                               |           |             |          |      |  |
| Prep Date:                 | 10/19/2012 |     | Analysis Date: 10/22/2012 |             |      | SeqNo: 184535                             |           | Units: µg/L |          |      |  |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD        | RPDLimit | Qual |  |
| Acenaphthene               | 63         | 10  | 100.0                     | 0           | 62.5 | 43.3                                      | 92        | 10.3        | 25       |      |  |
| 4-Chloro-3-methylphenol    | 140        | 10  | 200.0                     | 0           | 67.6 | 46.3                                      | 108       | 7.30        | 32.7     |      |  |
| 2-Chlorophenol             | 120        | 10  | 200.0                     | 0           | 59.8 | 38                                        | 99.3      | 8.77        | 20       |      |  |
| 1,4-Dichlorobenzene        | 54         | 10  | 100.0                     | 0           | 53.8 | 30.8                                      | 80.6      | 13.6        | 20       |      |  |
| 2,4-Dinitrotoluene         | 70         | 10  | 100.0                     | 0           | 70.2 | 46.1                                      | 117       | 4.16        | 29.9     |      |  |
| N-Nitrosodi-n-propylamine  | 65         | 10  | 100.0                     | 0           | 64.8 | 39.3                                      | 110       | 11.9        | 23.1     |      |  |
| 4-Nitrophenol              | 75         | 10  | 200.0                     | 0           | 37.7 | 29.8                                      | 67        | 5.34        | 40.5     |      |  |
| Pentachlorophenol          | 110        | 20  | 200.0                     | 0           | 54.1 | 32.2                                      | 95.7      | 2.07        | 37.3     |      |  |
| Phenol                     | 68         | 10  | 200.0                     | 0           | 34.1 | 27                                        | 64.8      | 14.1        | 20       |      |  |
| Pyrene                     | 68         | 10  | 100.0                     | 0           | 67.9 | 44.7                                      | 97.3      | 5.13        | 26.5     |      |  |
| 1,2,4-Trichlorobenzene     | 67         | 10  | 100.0                     | 0           | 66.7 | 36.6                                      | 86.7      | 8.58        | 27.2     |      |  |
| Surr: 2,4,6-Tribromophenol | 170        |     | 200.0                     |             | 87.5 | 42.9                                      | 124       | 0           | 0        |      |  |
| Surr: 2-Fluorobiphenyl     | 72         |     | 100.0                     |             | 71.5 | 40                                        | 108       | 0           | 0        |      |  |
| Surr: 2-Fluorophenol       | 110        |     | 200.0                     |             | 53.9 | 23.6                                      | 94.8      | 0           | 0        |      |  |
| Surr: 4-Terphenyl-d14      | 72         |     | 100.0                     |             | 72.5 | 41.9                                      | 103       | 0           | 0        |      |  |
| Surr: Nitrobenzene-d5      | 77         |     | 100.0                     |             | 76.5 | 42.6                                      | 114       | 0           | 0        |      |  |
| Surr: Phenol-d5            | 90         |     | 200.0                     |             | 45.1 | 20.3                                      | 74.7      | 0           | 0        |      |  |

### Qualifiers:

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J Analyte detected below quantitation limits  
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B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4425    |       | SampType: MBLK            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4425            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185335                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4425   |       | SampType: LCS             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4425            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185336                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 99.4                               | 80       | 120          |      |          |      |

|            |                    |       |                           |             |                                    |          |              |      |          |      |
|------------|--------------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-014CMS     |       | SampType: MS              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | SWMU 1-16 (0-0.5') |       | Batch ID: 4425            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012         |       | Analysis Date: 10/23/2012 |             | SeqNo: 185361                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result             | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.20               | 0.033 | 0.1670                    | 0.02118     | 109                                | 75       | 125          |      |          |      |

|            |                    |       |                           |             |                                    |          |              |      |          |      |
|------------|--------------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-014CMSD    |       | SampType: MSD             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | SWMU 1-16 (0-0.5') |       | Batch ID: 4425            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012         |       | Analysis Date: 10/23/2012 |             | SeqNo: 185362                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result             | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.20               | 0.033 | 0.1653                    | 0.02118     | 109                                | 75       | 125          | 1.12 | 20       |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4426    |       | SampType: MBLK            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185363                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4426   |       | SampType: LCS             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185364                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 101                                | 80       | 120          |      |          |      |

|            |                |       |                           |             |                                    |          |              |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210859-002CMS |       | SampType: MS              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012     |       | Analysis Date: 10/23/2012 |             | SeqNo: 185391                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.18           | 0.033 | 0.1654                    | 0.01134     | 102                                | 75       | 125          |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                 |                |            |             |                          |          |           |      |          |      |  |
|------------|-----------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|--|
| Sample ID  | 1210859-002CMSD | SampType:      | MSD        | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |  |
| Client ID: | BatchQC         | Batch ID:      | 4426       | RunNo:      | 6443                     |          |           |      |          |      |  |
| Prep Date: | 10/19/2012      | Analysis Date: | 10/23/2012 | SeqNo:      | 185392                   | Units:   | mg/kg     |      |          |      |  |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |  |
| Mercury    | 0.18            | 0.033          | 0.1685     | 0.01134     | 99.0                     | 75       | 125       | 1.06 | 20       |      |  |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                   |      |                |                   |      |           |                                      |      |                     |      |
|------------|-------------------|------|----------------|-------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>MB-4583</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>PBS</b>        |      | Batch ID:      | <b>4583</b>       |      | RunNo:    | <b>6598</b>                          |      |                     |      |
| Prep Date: | <b>10/30/2012</b> |      | Analysis Date: | <b>10/31/2012</b> |      | SeqNo:    | <b>190592</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Antimony   | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Arsenic    | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Barium     | ND                | 0.10 |                |                   |      |           |                                      |      |                     |      |
| Beryllium  | ND                | 0.15 |                |                   |      |           |                                      |      |                     |      |
| Cadmium    | ND                | 0.10 |                |                   |      |           |                                      |      |                     |      |
| Chromium   | ND                | 0.30 |                |                   |      |           |                                      |      |                     |      |
| Iron       | ND                | 1.0  |                |                   |      |           |                                      |      |                     |      |
| Lead       | ND                | 0.25 |                |                   |      |           |                                      |      |                     |      |
| Manganese  | ND                | 0.10 |                |                   |      |           |                                      |      |                     |      |
| Nickel     | ND                | 0.50 |                |                   |      |           |                                      |      |                     |      |
| Selenium   | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Vanadium   | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Zinc       | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |

|            |                   |      |                |                   |      |           |                                      |      |                     |      |
|------------|-------------------|------|----------------|-------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>LCS-4583</b>   |      | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |      | Batch ID:      | <b>4583</b>       |      | RunNo:    | <b>6598</b>                          |      |                     |      |
| Prep Date: | <b>10/30/2012</b> |      | Analysis Date: | <b>10/31/2012</b> |      | SeqNo:    | <b>190593</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Antimony   | 24                | 2.5  | 25.00          | 0                 | 96.4 | 80        | 120                                  |      |                     |      |
| Arsenic    | 25                | 2.5  | 25.00          | 0                 | 102  | 80        | 120                                  |      |                     |      |
| Barium     | 24                | 0.10 | 25.00          | 0                 | 97.4 | 80        | 120                                  |      |                     |      |
| Beryllium  | 26                | 0.15 | 25.00          | 0                 | 103  | 80        | 120                                  |      |                     |      |
| Cadmium    | 25                | 0.10 | 25.00          | 0                 | 98.8 | 80        | 120                                  |      |                     |      |
| Chromium   | 25                | 0.30 | 25.00          | 0                 | 98.7 | 80        | 120                                  |      |                     |      |
| Iron       | 25                | 1.0  | 25.00          | 0.8055            | 96.4 | 80        | 120                                  |      |                     |      |
| Lead       | 24                | 0.25 | 25.00          | 0                 | 97.2 | 80        | 120                                  |      |                     |      |
| Manganese  | 24                | 0.10 | 25.00          | 0.03200           | 96.1 | 80        | 120                                  |      |                     |      |
| Nickel     | 24                | 0.50 | 25.00          | 0                 | 94.6 | 80        | 120                                  |      |                     |      |
| Selenium   | 24                | 2.5  | 25.00          | 0                 | 96.0 | 80        | 120                                  |      |                     |      |
| Vanadium   | 25                | 2.5  | 25.00          | 0                 | 101  | 80        | 120                                  |      |                     |      |
| Zinc       | 24                | 2.5  | 25.00          | 0                 | 97.8 | 80        | 120                                  |      |                     |      |

|            |                   |      |                |                   |      |           |                                      |      |                     |      |
|------------|-------------------|------|----------------|-------------------|------|-----------|--------------------------------------|------|---------------------|------|
| Sample ID  | <b>MB-4499</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 6010B: Soil Metals</b> |      |                     |      |
| Client ID: | <b>PBS</b>        |      | Batch ID:      | <b>4499</b>       |      | RunNo:    | <b>6598</b>                          |      |                     |      |
| Prep Date: | <b>10/24/2012</b> |      | Analysis Date: | <b>10/31/2012</b> |      | SeqNo:    | <b>190715</b>                        |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                            | %RPD | RPDLimit            | Qual |
| Antimony   | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Arsenic    | ND                | 2.5  |                |                   |      |           |                                      |      |                     |      |
| Barium     | ND                | 0.10 |                |                   |      |           |                                      |      |                     |      |
| Beryllium  | ND                | 0.15 |                |                   |      |           |                                      |      |                     |      |

### Qualifiers:

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E Value above quantitation range  
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P Sample pH greater than 2

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4499    | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4499       | RunNo:      | 6598                          |          |           |      |          |      |
| Prep Date: | 10/24/2012 | Analysis Date: | 10/31/2012 | SeqNo:      | 190715                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|           |    |      |  |  |  |  |  |  |  |  |
|-----------|----|------|--|--|--|--|--|--|--|--|
| Cadmium   | ND | 0.10 |  |  |  |  |  |  |  |  |
| Chromium  | ND | 0.30 |  |  |  |  |  |  |  |  |
| Lead      | ND | 0.25 |  |  |  |  |  |  |  |  |
| Manganese | ND | 0.10 |  |  |  |  |  |  |  |  |
| Nickel    | ND | 0.50 |  |  |  |  |  |  |  |  |
| Selenium  | ND | 2.5  |  |  |  |  |  |  |  |  |
| Silver    | ND | 0.25 |  |  |  |  |  |  |  |  |
| Vanadium  | ND | 2.5  |  |  |  |  |  |  |  |  |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4499   | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4499       | RunNo:      | 6598                          |          |           |      |          |      |
| Prep Date: | 10/24/2012 | Analysis Date: | 10/31/2012 | SeqNo:      | 190716                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|           |     |      |       |         |     |    |     |  |  |   |
|-----------|-----|------|-------|---------|-----|----|-----|--|--|---|
| Antimony  | 27  | 2.5  | 25.00 | 0       | 108 | 80 | 120 |  |  |   |
| Arsenic   | 29  | 2.5  | 25.00 | 0       | 117 | 80 | 120 |  |  |   |
| Barium    | 26  | 0.10 | 25.00 | 0       | 104 | 80 | 120 |  |  |   |
| Beryllium | 28  | 0.15 | 25.00 | 0.01050 | 114 | 80 | 120 |  |  |   |
| Cadmium   | 27  | 0.10 | 25.00 | 0       | 108 | 80 | 120 |  |  |   |
| Chromium  | 26  | 0.30 | 25.00 | 0       | 102 | 80 | 120 |  |  |   |
| Lead      | 27  | 0.25 | 25.00 | 0       | 106 | 80 | 120 |  |  |   |
| Manganese | 26  | 0.10 | 25.00 | 0.02950 | 103 | 80 | 120 |  |  |   |
| Nickel    | 26  | 0.50 | 25.00 | 0       | 105 | 80 | 120 |  |  |   |
| Selenium  | 32  | 2.5  | 25.00 | 0       | 128 | 80 | 120 |  |  | S |
| Silver    | 5.1 | 0.25 | 5.000 | 0       | 101 | 80 | 120 |  |  |   |
| Vanadium  | 26  | 2.5  | 25.00 | 0.08900 | 105 | 80 | 120 |  |  |   |

|            |            |                |           |             |                               |          |           |      |          |      |
|------------|------------|----------------|-----------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4499    | SampType:      | MBLK      | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4499      | RunNo:      | 6670                          |          |           |      |          |      |
| Prep Date: | 10/24/2012 | Analysis Date: | 11/2/2012 | SeqNo:      | 192435                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

|          |    |      |  |  |  |  |  |  |  |  |
|----------|----|------|--|--|--|--|--|--|--|--|
| Cobalt   | ND | 0.30 |  |  |  |  |  |  |  |  |
| Iron     | ND | 1.0  |  |  |  |  |  |  |  |  |
| Selenium | ND | 2.5  |  |  |  |  |  |  |  |  |
| Zinc     | ND | 2.5  |  |  |  |  |  |  |  |  |

|            |            |                |           |             |                               |          |           |      |          |      |
|------------|------------|----------------|-----------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4499   | SampType:      | LCS       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4499      | RunNo:      | 6670                          |          |           |      |          |      |
| Prep Date: | 10/24/2012 | Analysis Date: | 11/2/2012 | SeqNo:      | 192436                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |      |                          |             |                                         |          |              |      |          |      |
|------------|------------|------|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4499   |      | SampType: LCS            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | LCSS       |      | Batch ID: 4499           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/24/2012 |      | Analysis Date: 11/2/2012 |             | SeqNo: 192436                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL  | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Cobalt     | 26         | 0.30 | 25.00                    | 0           | 102                                     | 80       | 120          |      |          |      |
| Iron       | 27         | 1.0  | 25.00                    | 0           | 106                                     | 80       | 120          |      |          |      |
| Selenium   | 29         | 2.5  | 25.00                    | 0           | 117                                     | 80       | 120          |      |          |      |
| Zinc       | 27         | 2.5  | 25.00                    | 0           | 106                                     | 80       | 120          |      |          |      |

|            |                    |      |                          |             |                                         |          |              |      |          |      |
|------------|--------------------|------|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-016CMS     |      | SampType: MS             |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | SWMU 1-17 (0-0.5') |      | Batch ID: 4499           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/24/2012         |      | Analysis Date: 11/2/2012 |             | SeqNo: 192540                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result             | PQL  | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Beryllium  | 27                 | 0.30 | 24.90                    | 0.6732      | 107                                     | 75       | 125          |      |          |      |
| Cadmium    | 26                 | 0.20 | 24.90                    | 0           | 105                                     | 75       | 125          |      |          |      |
| Chromium   | 33                 | 0.60 | 24.90                    | 6.613       | 104                                     | 75       | 125          |      |          |      |
| Cobalt     | 28                 | 0.60 | 24.90                    | 4.089       | 96.6                                    | 75       | 125          |      |          |      |
| Lead       | 23                 | 0.50 | 24.90                    | 0.8184      | 89.2                                    | 75       | 125          |      |          |      |
| Nickel     | 30                 | 1.0  | 24.90                    | 6.438       | 94.0                                    | 75       | 125          |      |          |      |
| Silver     | 4.9                | 0.50 | 4.979                    | 0           | 99.3                                    | 75       | 125          |      |          |      |
| Vanadium   | 46                 | 5.0  | 24.90                    | 18.97       | 109                                     | 75       | 125          |      |          |      |
| Zinc       | 40                 | 5.0  | 24.90                    | 15.37       | 99.3                                    | 75       | 125          |      |          |      |

|            |                    |      |                          |             |                                         |          |              |      |          |      |
|------------|--------------------|------|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-016CMSD    |      | SampType: MSD            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | SWMU 1-17 (0-0.5') |      | Batch ID: 4499           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/24/2012         |      | Analysis Date: 11/2/2012 |             | SeqNo: 192541                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result             | PQL  | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Beryllium  | 26                 | 0.30 | 24.83                    | 0.6732      | 101                                     | 75       | 125          | 5.69 | 20       |      |
| Cadmium    | 25                 | 0.20 | 24.83                    | 0           | 100                                     | 75       | 125          | 4.75 | 20       |      |
| Chromium   | 30                 | 0.60 | 24.83                    | 6.613       | 93.2                                    | 75       | 125          | 8.99 | 20       |      |
| Cobalt     | 27                 | 0.60 | 24.83                    | 4.089       | 90.7                                    | 75       | 125          | 5.59 | 20       |      |
| Lead       | 23                 | 0.50 | 24.83                    | 0.8184      | 87.6                                    | 75       | 125          | 1.99 | 20       |      |
| Nickel     | 28                 | 1.0  | 24.83                    | 6.438       | 86.7                                    | 75       | 125          | 6.41 | 20       |      |
| Silver     | 4.7                | 0.50 | 4.967                    | 0           | 95.0                                    | 75       | 125          | 4.71 | 20       |      |
| Vanadium   | 42                 | 5.0  | 24.83                    | 18.97       | 92.5                                    | 75       | 125          | 9.29 | 20       |      |
| Zinc       | 38                 | 5.0  | 24.83                    | 15.37       | 89.3                                    | 75       | 125          | 6.54 | 20       |      |

|            |                |      |                          |             |                                         |          |              |      |          |      |
|------------|----------------|------|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210C58-003CMS |      | SampType: MS             |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | BatchQC        |      | Batch ID: 4583           |             | RunNo: 6663                             |          |              |      |          |      |
| Prep Date: | 10/30/2012     |      | Analysis Date: 11/2/2012 |             | SeqNo: 192743                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result         | PQL  | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Arsenic    | 24             | 2.5  | 24.84                    | 2.875       | 86.2                                    | 75       | 125          |      |          |      |
| Barium     | 42             | 0.10 | 24.84                    | 12.37       | 120                                     | 75       | 125          |      |          |      |

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- ND Not Detected at the Reporting Limit
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |           |             |                               |          |           |      |          |      |
|------------|----------------|----------------|-----------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210C58-003CMS | SampType:      | MS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4583      | RunNo:      | 6663                          |          |           |      |          |      |
| Prep Date: | 10/30/2012     | Analysis Date: | 11/2/2012 | SeqNo:      | 192743                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Cadmium    | 21             | 0.10           | 24.84     | 0           | 85.3                          | 75       | 125       |      |          |      |
| Chromium   | 24             | 0.30           | 24.84     | 1.934       | 89.0                          | 75       | 125       |      |          |      |
| Selenium   | 20             | 2.5            | 24.84     | 0           | 78.6                          | 75       | 125       |      |          |      |

|            |                 |                |           |             |                               |          |           |       |          |      |
|------------|-----------------|----------------|-----------|-------------|-------------------------------|----------|-----------|-------|----------|------|
| Sample ID  | 1210C58-003CMSD | SampType:      | MSD       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |       |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4583      | RunNo:      | 6663                          |          |           |       |          |      |
| Prep Date: | 10/30/2012      | Analysis Date: | 11/2/2012 | SeqNo:      | 192744                        | Units:   | mg/Kg     |       |          |      |
| Analyte    | Result          | PQL            | SPK value | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Arsenic    | 28              | 2.5            | 24.62     | 2.875       | 102                           | 75       | 125       | 14.5  | 20       |      |
| Barium     | 39              | 0.10           | 24.62     | 12.37       | 108                           | 75       | 125       | 7.61  | 20       |      |
| Cadmium    | 21              | 0.10           | 24.62     | 0           | 86.7                          | 75       | 125       | 0.763 | 20       |      |
| Chromium   | 24              | 0.30           | 24.62     | 1.934       | 90.1                          | 75       | 125       | 0.297 | 20       |      |
| Selenium   | 20              | 2.5            | 24.62     | 0           | 80.9                          | 75       | 125       | 1.99  | 20       |      |

|            |           |                |            |             |                               |          |           |      |          |      |
|------------|-----------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4745   | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS       | Batch ID:      | 4745       | RunNo:      | 6879                          |          |           |      |          |      |
| Prep Date: | 11/8/2012 | Analysis Date: | 11/13/2012 | SeqNo:      | 198947                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result    | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | ND        | 0.25           |            |             |                               |          |           |      |          |      |

|            |           |                |            |             |                               |          |           |      |          |      |
|------------|-----------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4745  | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS      | Batch ID:      | 4745       | RunNo:      | 6879                          |          |           |      |          |      |
| Prep Date: | 11/8/2012 | Analysis Date: | 11/13/2012 | SeqNo:      | 198948                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result    | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 5.6       | 0.25           | 5.000      | 0           | 112                           | 80       | 120       |      |          |      |

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210C58-003CMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4745       | RunNo:      | 6885                          |          |           |      |          |      |
| Prep Date: | 11/8/2012      | Analysis Date: | 11/14/2012 | SeqNo:      | 199235                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.4            | 0.25           | 4.807      | 0.06026     | 91.2                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210C58-003CMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4745       | RunNo:      | 6885                          |          |           |      |          |      |
| Prep Date: | 11/8/2012       | Analysis Date: | 11/14/2012 | SeqNo:      | 199236                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.9             | 0.25           | 4.918      | 0.06026     | 97.9                          | 75       | 125       | 9.20 | 20       |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                    |                           |           |             |                                         |          |              |      |          |      |
|------------|--------------------|---------------------------|-----------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210811-016CMS     | SampType: MS              |           |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | SWMU 1-17 (0-0.5') | Batch ID: 4499            |           |             | RunNo: 7112                             |          |              |      |          |      |
| Prep Date: | 10/24/2012         | Analysis Date: 11/27/2012 |           |             | SeqNo: 206181                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result             | PQL                       | SPK value | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Antimony   | ND                 | 5.0                       | 24.90     | 0           | 0                                       | 75       | 125          |      |          | S    |
| Arsenic    | 28                 | 5.0                       | 24.90     | 4.739       | 93.9                                    | 75       | 125          |      |          |      |
| Selenium   | 18                 | 5.0                       | 24.90     | 0           | 71.6                                    | 75       | 125          |      |          | S    |

|            |                    |                |            |                                         |      |              |           |      |          |      |
|------------|--------------------|----------------|------------|-----------------------------------------|------|--------------|-----------|------|----------|------|
| Sample ID  | 1210811-016CMSD    | SampType:      | MSD        | TestCode: EPA Method 6010B: Soil Metals |      |              |           |      |          |      |
| Client ID: | SWMU 1-17 (0-0.5') | Batch ID:      | 4499       | RunNo: 7112                             |      |              |           |      |          |      |
| Prep Date: | 10/24/2012         | Analysis Date: | 11/27/2012 | SeqNo: 206182                           |      | Units: mg/Kg |           |      |          |      |
| Analyte    | Result             | PQL            | SPK value  | SPK Ref Val                             | %REC | LowLimit     | HighLimit | %RPD | RPDLimit | Qual |
| Antimony   | ND                 | 5.0            | 24.83      | 0                                       | 0    | 75           | 125       | 0    | 20       | S    |
| Arsenic    | 29                 | 5.0            | 24.83      | 4.739                                   | 99.5 | 75           | 125       | 4.69 | 20       |      |
| Selenium   | 17                 | 5.0            | 24.83      | 0                                       | 67.3 | 75           | 125       | 6.49 | 20       | S    |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210811

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |                                  |       |           |                                                   |      |                    |           |      |          |      |
|-------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>b6</b>           | SampType: <b>MBLK</b>            |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>PBW</b>         | Batch ID: <b>R6394</b>           |       |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>10/20/2012</b> |       |           | SeqNo: <b>184074</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                       | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                               | 0.050 |           |                                                   |      |                    |           |      |          |      |
| Surr: BFB                     | 9.6                              |       | 10.00     |                                                   | 95.8 | 70                 | 130       |      |          |      |

|                                |                                  |       |           |                                                   |      |                    |           |      |          |      |
|--------------------------------|----------------------------------|-------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>2.5ug gro lcs</b> | SampType: <b>LCS</b>             |       |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>LCSW</b>         | Batch ID: <b>R6394</b>           |       |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>10/19/2012</b> |       |           | SeqNo: <b>184077</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                        | Result                           | PQL   | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 0.43                             | 0.050 | 0.5000    | 0                                                 | 86.2 | 85                 | 115       |      |          |      |
| Surr: BFB                      | 10                               |       | 10.00     |                                                   | 99.9 | 70                 | 130       |      |          |      |

|                                 |                                  |      |           |                                                   |      |                    |           |      |          |      |
|---------------------------------|----------------------------------|------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210660-001ams</b> | SampType: <b>MS</b>              |      |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>       | Batch ID: <b>R6394</b>           |      |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                      | Analysis Date: <b>10/20/2012</b> |      |           | SeqNo: <b>184078</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                         | Result                           | PQL  | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)   | 4.0                              | 0.25 | 2.500     | 1.915                                             | 82.1 | 70                 | 130       |      |          |      |
| Surr: BFB                       | 46                               |      | 50.00     |                                                   | 91.6 | 70                 | 130       |      |          |      |

|                                  |                                  |      |           |                                                   |      |                    |           |      |          |      |
|----------------------------------|----------------------------------|------|-----------|---------------------------------------------------|------|--------------------|-----------|------|----------|------|
| Sample ID <b>1210660-001amsd</b> | SampType: <b>MSD</b>             |      |           | TestCode: <b>EPA Method 8015B: Gasoline Range</b> |      |                    |           |      |          |      |
| Client ID: <b>BatchQC</b>        | Batch ID: <b>R6394</b>           |      |           | RunNo: <b>6394</b>                                |      |                    |           |      |          |      |
| Prep Date:                       | Analysis Date: <b>10/20/2012</b> |      |           | SeqNo: <b>184079</b>                              |      | Units: <b>mg/L</b> |           |      |          |      |
| Analyte                          | Result                           | PQL  | SPK value | SPK Ref Val                                       | %REC | LowLimit           | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)    | 3.8                              | 0.25 | 2.500     | 1.915                                             | 76.4 | 70                 | 130       | 3.70 | 20       |      |
| Surr: BFB                        | 51                               |      | 50.00     |                                                   | 102  | 70                 | 130       | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# Sample Log-In Check List

|                   |                         |                       |                        |         |
|-------------------|-------------------------|-----------------------|------------------------|---------|
| Client Name:      | Western Refining Gallup |                       | Work Order Number:     | 1210811 |
| Received by/date: | <i>mg</i> 10/17/12      |                       |                        |         |
| Logged By:        | Michelle Garcia         | 10/17/2012 8:00:00 AM | <i>Michelle Garcia</i> |         |
| Completed By:     | Michelle Garcia         | 10/17/2012 9:05:43 AM | <i>Michelle Garcia</i> |         |
| Reviewed By:      | <i>mg</i> 10/17/12      |                       |                        |         |

## Chain of Custody

- Were seals intact? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? FedEx

## Log In

- Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked ( 1 )  
for pH: <2 or >12 unless noted  
Adjusted? \_\_\_\_\_  
Checked by: *[Signature]*

## Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |       |       |                                                                                                                               |
|----------------------|-------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | _____ | Date: | _____                                                                                                                         |
| By Whom:             | _____ | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | _____ |       |                                                                                                                               |
| Client Instructions: | _____ |       |                                                                                                                               |

- Additional remarks:

## 19. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0     | Good      | Yes         |         |           |           |











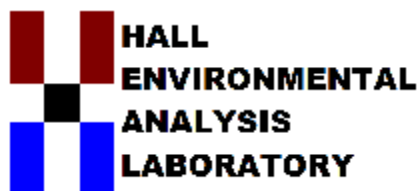


| Rpt                                 | T | Analyte              | Units | Synonym | MDL     | LOD | LOQ |
|-------------------------------------|---|----------------------|-------|---------|---------|-----|-----|
| <input type="checkbox"/>            | A | Aluminum             | mg/Kg |         | 0.4481  | 0   |     |
| <input checked="" type="checkbox"/> | A | Antimony             | mg/Kg |         | 0.629   | 0   |     |
| <input checked="" type="checkbox"/> | A | Arsenic              | mg/Kg |         | 0.6263  | 0   |     |
| <input checked="" type="checkbox"/> | A | Barium               | mg/Kg |         | 0.0609  | 0   |     |
| <input checked="" type="checkbox"/> | A | Beryllium            | mg/Kg |         | 0.0093  | 0   |     |
| <input type="checkbox"/>            | A | Boron                | mg/Kg |         | 0.0826  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cadmium              | mg/Kg |         | 0.0271  | 0   |     |
| <input type="checkbox"/>            | A | Calcium              | mg/Kg |         | 6.9713  | 0   |     |
| <input checked="" type="checkbox"/> | A | Chromium             | mg/Kg |         | 0.1184  | 0   |     |
| <input checked="" type="checkbox"/> | A | Cobalt               | mg/Kg |         | 0.0689  | 0   |     |
| <input type="checkbox"/>            | A | Copper               | mg/Kg |         | 0.2323  | 0   |     |
| <input checked="" type="checkbox"/> | A | Iron                 | mg/Kg |         | 0.7476  | 0   |     |
| <input checked="" type="checkbox"/> | A | Lead                 | mg/Kg |         | 0.2194  | 0   |     |
| <input type="checkbox"/>            | A | Magnesium            | mg/Kg |         | 0.4651  | 0   |     |
| <input checked="" type="checkbox"/> | A | Manganese            | mg/Kg |         | 0.0212  | 0   |     |
| <input type="checkbox"/>            | A | Molybdenum           | mg/Kg |         | 0.1423  | 0   |     |
| <input checked="" type="checkbox"/> | A | Nickel               | mg/Kg |         | 0.1668  | 0   |     |
| <input type="checkbox"/>            | A | Potassium            | mg/Kg |         | 17.3925 | 0   |     |
| <input checked="" type="checkbox"/> | A | Selenium             | mg/Kg |         | 1.4025  | 0   |     |
| <input checked="" type="checkbox"/> | A | Silver               | mg/Kg |         | 0.0354  | 0   |     |
| <input type="checkbox"/>            | A | Sodium               | mg/Kg |         | 8.4278  | 0   |     |
| <input type="checkbox"/>            | A | Thallium             | mg/Kg |         | 1.1557  | 0   |     |
| <input type="checkbox"/>            | A | Tin                  | mg/Kg |         | 0.8261  | 0   |     |
| <input type="checkbox"/>            | A | Titanium             | mg/Kg |         | 0.0342  | 0   |     |
| <input type="checkbox"/>            | A | Uranium              | mg/Kg |         | 0.7296  | 0   |     |
| <input checked="" type="checkbox"/> | A | Vanadium             | mg/Kg |         | 0.0565  | 0   |     |
| <input checked="" type="checkbox"/> | A | Zinc                 | mg/Kg |         | 1.0066  | 0   |     |
| <input type="checkbox"/>            | I | Yttrium              | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | I | Yttrium Radial       | %     |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Uranium-confirmation | mg/Kg |         | 0       | 0   |     |
| <input type="checkbox"/>            | X | Silicon              | mg/Kg |         | 0       | 0   |     |

+ Hg

+ Cu

+ Anions



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 21, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210856

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-31 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:00:00 PM

**Lab ID:** 1210856-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: <b>JMP</b>    |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 8:45:13 AM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/21/2012 8:45:13 AM  |
| Surr: DNOP                                     | 103    | 77.6-140 |      | %REC  | 1   | 10/21/2012 8:45:13 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: <b>NSB</b>    |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 7:17:23 PM  |
| Surr: BFB                                      | 91.0   | 84-116   |      | %REC  | 1   | 10/24/2012 7:17:23 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: <b>IDC</b>    |
| Mercury                                        | 0.063  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:32:17 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: <b>JLF</b>    |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Barium                                         | 350    | 1.0      |      | mg/Kg | 10  | 10/25/2012 1:29:20 PM  |
| Beryllium                                      | 0.56   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:51:37 AM   |
| Lead                                           | 5.2    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Manganese                                      | 420    | 1.0      |      | mg/Kg | 10  | 10/25/2012 1:29:20 PM  |
| Nickel                                         | 8.0    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 3:19:29 PM  |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| Zinc                                           | 30     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:38:41 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: <b>JDC</b>    |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/22/2012 8:48:45 AM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-31 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:00:00 PM

**Lab ID:** 1210856-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-31 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:00:00 PM

**Lab ID:** 1210856-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Nitroaniline                         | ND      | 4.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Nitrobenzene                           | ND      | 5.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/22/2012 8:48:45 AM |
| Surr: 2,4,6-Tribromophenol             | 93.6    | 21.3-145 |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| Surr: 2-Fluorobiphenyl                 | 90.8    | 20-131   |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| Surr: 2-Fluorophenol                   | 81.9    | 11.9-130 |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| Surr: 4-Terphenyl-d14                  | 119     | 25.1-149 |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| Surr: Nitrobenzene-d5                  | 91.2    | 25.6-137 |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| Surr: Phenol-d5                        | 94.1    | 20.3-132 |      | %REC  | 1  | 10/22/2012 8:48:45 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00119 | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Toluene                                | 0.00295 | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Ethylbenzene                           | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Xylenes, Total                         | 0.00320 | 0.00168  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2,4-Trimethylbenzene                 | 0.00138 | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Naphthalene                            | ND      | 0.00168  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1-Methylnaphthalene                    | ND      | 0.00335  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 2-Methylnaphthalene                    | ND      | 0.00335  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Acetone                                | 0.0344  | 0.00838  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Bromobenzene                           | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Bromodichloromethane                   | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Bromoform                              | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Bromomethane                           | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 2-Butanone                             | ND      | 0.00838  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Carbon tetrachloride                   | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Chlorobenzene                          | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Chloroethane                           | ND      | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-31 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:00:00 PM

**Lab ID:** 1210856-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Chloromethane                          | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 2-Chlorotoluene                        | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Carbon disulfide                       | ND     | 0.00838  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 4-Chlorotoluene                        | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| cis-1,2-DCE                            | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Dibromochloromethane                   | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Dibromomethane                         | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Dichlorodifluoromethane                | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1-Dichloroethane                     | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1-Dichloroethene                     | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2-Dichloropropane                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,3-Dichloropropane                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 2,2-Dichloropropane                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1-Dichloropropene                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Hexachlorobutadiene                    | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Isopropylbenzene                       | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 4-Isopropyltoluene                     | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Methylene chloride                     | ND     | 0.00252  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| n-Butylbenzene                         | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 2-Hexanone                             | ND     | 0.00838  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| n-Propylbenzene                        | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| sec-Butylbenzene                       | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Styrene                                | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00838  |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| tert-Butylbenzene                      | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| trans-1,2-DCE                          | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Trichloroethene (TCE)                  | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Trichlorofluoromethane                 | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-31 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:00:00 PM

**Lab ID:** 1210856-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Vinyl chloride                         | ND     | 0.000838 |      | mg/Kg | 1  | 10/18/2012 1:18:41 PM |
| Surr: 1,2-Dichloroethane-d4            | 90.1   | 70-130   |      | %REC  | 1  | 10/18/2012 1:18:41 PM |
| Surr: 4-Bromofluorobenzene             | 114    | 70-130   |      | %REC  | 1  | 10/18/2012 1:18:41 PM |
| Surr: Dibromofluoromethane             | 99.9   | 70-130   |      | %REC  | 1  | 10/18/2012 1:18:41 PM |
| Surr: Toluene-d8                       | 89.3   | 70-130   |      | %REC  | 1  | 10/18/2012 1:18:41 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC           |
| Diesel Range Organics (DRO)                    | 19     | 9.7      |      | mg/Kg | 1   | 10/21/2012 3:01:01 PM  |
| Motor Oil Range Organics (MRO)                 | 100    | 48       |      | mg/Kg | 1   | 10/21/2012 3:01:01 PM  |
| Surr: DNOP                                     | 106    | 77.6-140 |      | %REC  | 1   | 10/21/2012 3:01:01 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 11:07:20 PM |
| Surr: BFB                                      | 86.2   | 84-116   |      | %REC  | 1   | 10/24/2012 11:07:20 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.13   | 0.033    |      | mg/kg | 1   | 10/23/2012 6:34:06 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Barium                                         | 600    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:44:01 PM  |
| Beryllium                                      | 0.64   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Chromium                                       | 17     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:54:30 AM   |
| Lead                                           | 6.3    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Manganese                                      | 440    | 1.0      |      | mg/Kg | 10  | 10/25/2012 1:34:12 PM  |
| Nickel                                         | 13     | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Silver                                         | ND     | 0.25     |      | mg/Kg | 1   | 10/29/2012 3:24:30 PM  |
| Vanadium                                       | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| Zinc                                           | 36     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:43:44 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 5:37:35 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Nitroaniline                         | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Nitrobenzene                           | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 5:37:35 PM |
| Surr: 2,4,6-Tribromophenol             | 112     | 21.3-145 |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| Surr: 2-Fluorobiphenyl                 | 103     | 20-131   |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| Surr: 2-Fluorophenol                   | 99.0    | 11.9-130 |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| Surr: 4-Terphenyl-d14                  | 126     | 25.1-149 |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| Surr: Nitrobenzene-d5                  | 97.0    | 25.6-137 |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| Surr: Phenol-d5                        | 102     | 20.3-132 |      | %REC  | 1  | 10/23/2012 5:37:35 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00140 | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Toluene                                | 0.00442 | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Ethylbenzene                           | 0.00107 | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Xylenes, Total                         | 0.00394 | 0.00165  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2,4-Trimethylbenzene                 | 0.00179 | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Naphthalene                            | ND      | 0.00165  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1-Methylnaphthalene                    | ND      | 0.00331  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 2-Methylnaphthalene                    | ND      | 0.00331  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Acetone                                | 0.0551  | 0.00827  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Bromobenzene                           | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Bromodichloromethane                   | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Bromoform                              | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Bromomethane                           | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 2-Butanone                             | ND      | 0.00827  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Carbon tetrachloride                   | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Chlorobenzene                          | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Chloroethane                           | ND      | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Chloromethane                          | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 2-Chlorotoluene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Carbon disulfide                       | ND     | 0.00827  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 4-Chlorotoluene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| cis-1,2-DCE                            | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Dibromochloromethane                   | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Dibromomethane                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Dichlorodifluoromethane                | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1-Dichloroethane                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1-Dichloroethene                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,3-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 2,2-Dichloropropane                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1-Dichloropropene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Hexachlorobutadiene                    | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Isopropylbenzene                       | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 4-Isopropyltoluene                     | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Methylene chloride                     | ND     | 0.00248  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| n-Butylbenzene                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 2-Hexanone                             | ND     | 0.00827  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| n-Propylbenzene                        | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| sec-Butylbenzene                       | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Styrene                                | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00827  |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| tert-Butylbenzene                      | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| trans-1,2-DCE                          | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Trichloroethene (TCE)                  | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Trichlorofluoromethane                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Vinyl chloride                         | ND     | 0.000827 |      | mg/Kg | 1  | 10/18/2012 1:49:28 PM |
| Surr: 1,2-Dichloroethane-d4            | 94.8   | 70-130   |      | %REC  | 1  | 10/18/2012 1:49:28 PM |
| Surr: 4-Bromofluorobenzene             | 120    | 70-130   |      | %REC  | 1  | 10/18/2012 1:49:28 PM |
| Surr: Dibromofluoromethane             | 108    | 70-130   |      | %REC  | 1  | 10/18/2012 1:49:28 PM |
| Surr: Toluene-d8                       | 102    | 70-130   |      | %REC  | 1  | 10/18/2012 1:49:28 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC           |
| Diesel Range Organics (DRO)                    | 29     | 10       |      | mg/Kg | 1   | 10/21/2012 4:17:09 PM  |
| Motor Oil Range Organics (MRO)                 | 200    | 51       |      | mg/Kg | 1   | 10/21/2012 4:17:09 PM  |
| Surr: DNOP                                     | 112    | 77.6-140 |      | %REC  | 1   | 10/21/2012 4:17:09 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/24/2012 11:36:04 PM |
| Surr: BFB                                      | 88.3   | 84-116   |      | %REC  | 1   | 10/24/2012 11:36:04 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.13   | 0.033    |      | mg/kg | 1   | 10/23/2012 6:35:52 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Barium                                         | 580    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:48:50 PM  |
| Beryllium                                      | 0.66   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Chromium                                       | 21     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Cobalt                                         | 5.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Iron                                           | 19000  | 500      |      | mg/Kg | 500 | 11/2/2012 6:57:23 AM   |
| Lead                                           | 8.0    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Manganese                                      | 540    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:48:50 PM  |
| Nickel                                         | 16     | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 3:41:51 PM  |
| Vanadium                                       | 28     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| Zinc                                           | 43     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:50:31 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:07:04 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|----------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Nitroaniline                         | ND       | 4.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Nitrobenzene                           | ND       | 5.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2-Nitrophenol                          | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 4-Nitrophenol                          | ND       | 2.5      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Pentachlorophenol                      | ND       | 4.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Phenanthrene                           | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Phenol                                 | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Pyrene                                 | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Pyridine                               | ND       | 5.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 1,2,4-Trichlorobenzene                 | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4,5-Trichlorophenol                  | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| 2,4,6-Trichlorophenol                  | ND       | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:07:04 PM |
| Surr: 2,4,6-Tribromophenol             | 95.1     | 21.3-145 |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| Surr: 2-Fluorobiphenyl                 | 91.6     | 20-131   |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| Surr: 2-Fluorophenol                   | 81.6     | 11.9-130 |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| Surr: 4-Terphenyl-d14                  | 120      | 25.1-149 |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| Surr: Nitrobenzene-d5                  | 85.6     | 25.6-137 |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| Surr: Phenol-d5                        | 86.6     | 20.3-132 |      | %REC  | 1  | 10/23/2012 6:07:04 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00134  | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Toluene                                | 0.00384  | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Ethylbenzene                           | 0.00105  | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Xylenes, Total                         | 0.00404  | 0.00167  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Methyl tert-butyl ether (MTBE)         | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2,4-Trimethylbenzene                 | 0.00207  | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,3,5-Trimethylbenzene                 | 0.000842 | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Naphthalene                            | ND       | 0.00167  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1-Methylnaphthalene                    | ND       | 0.00333  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 2-Methylnaphthalene                    | ND       | 0.00333  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Acetone                                | 0.0483   | 0.00834  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Bromobenzene                           | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Bromodichloromethane                   | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Bromoform                              | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Bromomethane                           | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 2-Butanone                             | ND       | 0.00834  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Carbon tetrachloride                   | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Chlorobenzene                          | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Chloroethane                           | ND       | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Chloromethane                          | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 2-Chlorotoluene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Carbon disulfide                       | ND     | 0.00834  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 4-Chlorotoluene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| cis-1,2-DCE                            | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Dibromochloromethane                   | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Dibromomethane                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Dichlorodifluoromethane                | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1-Dichloroethane                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1-Dichloroethene                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,3-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 2,2-Dichloropropane                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1-Dichloropropene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Hexachlorobutadiene                    | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Isopropylbenzene                       | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 4-Isopropyltoluene                     | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Methylene chloride                     | ND     | 0.00250  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| n-Butylbenzene                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 2-Hexanone                             | ND     | 0.00834  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| n-Propylbenzene                        | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| sec-Butylbenzene                       | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Styrene                                | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00834  |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| tert-Butylbenzene                      | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| trans-1,2-DCE                          | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Trichloroethene (TCE)                  | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Trichlorofluoromethane                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-32 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 3:40:00 PM

**Lab ID:** 1210856-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Vinyl chloride                         | ND     | 0.000834 |      | mg/Kg | 1  | 10/18/2012 2:20:20 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.9   | 70-130   |      | %REC  | 1  | 10/18/2012 2:20:20 PM |
| Surr: 4-Bromofluorobenzene             | 126    | 70-130   |      | %REC  | 1  | 10/18/2012 2:20:20 PM |
| Surr: Dibromofluoromethane             | 102    | 70-130   |      | %REC  | 1  | 10/18/2012 2:20:20 PM |
| Surr: Toluene-d8                       | 98.2   | 70-130   |      | %REC  | 1  | 10/18/2012 2:20:20 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-33 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:03:00 PM

**Lab ID:** 1210856-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC           |
| Diesel Range Organics (DRO)                    | 20     | 9.8      |      | mg/Kg | 1   | 10/21/2012 3:26:23 PM  |
| Motor Oil Range Organics (MRO)                 | 110    | 49       |      | mg/Kg | 1   | 10/21/2012 3:26:23 PM  |
| Surr: DNOP                                     | 106    | 77.6-140 |      | %REC  | 1   | 10/21/2012 3:26:23 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 12:04:52 AM |
| Surr: BFB                                      | 90.2   | 84-116   |      | %REC  | 1   | 10/25/2012 12:04:52 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.055  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:37:39 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Barium                                         | 680    | 2.0      |      | mg/Kg | 20  | 10/25/2012 1:52:47 PM  |
| Beryllium                                      | 0.64   | 0.30     |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Cobalt                                         | 3.2    | 0.60     |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:00:17 AM   |
| Lead                                           | 3.7    | 0.50     |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Manganese                                      | 800    | 2.0      |      | mg/Kg | 20  | 10/25/2012 1:52:47 PM  |
| Nickel                                         | 8.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Silver                                         | ND     | 0.25     |      | mg/Kg | 1   | 10/29/2012 3:47:14 PM  |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| Zinc                                           | 23     | 5.0      |      | mg/Kg | 2   | 10/25/2012 11:55:53 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 6:36:34 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-33 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:03:00 PM

**Lab ID:** 1210856-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-33 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:03:00 PM

**Lab ID:** 1210856-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Nitroaniline                         | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Nitrobenzene                           | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 6:36:34 PM |
| Surr: 2,4,6-Tribromophenol             | 92.9    | 21.3-145 |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| Surr: 2-Fluorobiphenyl                 | 89.4    | 20-131   |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| Surr: 2-Fluorophenol                   | 80.5    | 11.9-130 |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| Surr: 4-Terphenyl-d14                  | 117     | 25.1-149 |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| Surr: Nitrobenzene-d5                  | 85.6    | 25.6-137 |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| Surr: Phenol-d5                        | 86.2    | 20.3-132 |      | %REC  | 1  | 10/23/2012 6:36:34 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00146 | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Toluene                                | 0.00437 | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Ethylbenzene                           | 0.00103 | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Xylenes, Total                         | 0.00362 | 0.00180  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2,4-Trimethylbenzene                 | 0.00116 | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Naphthalene                            | ND      | 0.00180  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1-Methylnaphthalene                    | ND      | 0.00359  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 2-Methylnaphthalene                    | ND      | 0.00359  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Acetone                                | 0.0526  | 0.00899  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Bromobenzene                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Bromodichloromethane                   | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Bromoform                              | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Bromomethane                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 2-Butanone                             | ND      | 0.00899  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Carbon tetrachloride                   | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Chlorobenzene                          | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Chloroethane                           | ND      | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |

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## Analytical Report

Lab Order 1210856

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**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-33 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:03:00 PM

**Lab ID:** 1210856-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Chloromethane                          | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 2-Chlorotoluene                        | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Carbon disulfide                       | ND     | 0.00899  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 4-Chlorotoluene                        | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| cis-1,2-DCE                            | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Dibromochloromethane                   | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Dibromomethane                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Dichlorodifluoromethane                | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1-Dichloroethane                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1-Dichloroethene                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,3-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 2,2-Dichloropropane                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1-Dichloropropene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Hexachlorobutadiene                    | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Isopropylbenzene                       | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 4-Isopropyltoluene                     | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Methylene chloride                     | ND     | 0.00270  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| n-Butylbenzene                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 2-Hexanone                             | ND     | 0.00899  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| n-Propylbenzene                        | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| sec-Butylbenzene                       | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Styrene                                | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00899  |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| tert-Butylbenzene                      | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| trans-1,2-DCE                          | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Trichloroethene (TCE)                  | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Trichlorofluoromethane                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-33 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:03:00 PM

**Lab ID:** 1210856-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Vinyl chloride                         | ND     | 0.000899 |      | mg/Kg | 1  | 10/18/2012 2:51:16 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.6   | 70-130   |      | %REC  | 1  | 10/18/2012 2:51:16 PM |
| Surr: 4-Bromofluorobenzene             | 99.4   | 70-130   |      | %REC  | 1  | 10/18/2012 2:51:16 PM |
| Surr: Dibromofluoromethane             | 95.7   | 70-130   |      | %REC  | 1  | 10/18/2012 2:51:16 PM |
| Surr: Toluene-d8                       | 86.1   | 70-130   |      | %REC  | 1  | 10/18/2012 2:51:16 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-34 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:30:00 PM

**Lab ID:** 1210856-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.9      |      | mg/Kg | 1   | 10/21/2012 9:35:22 AM  |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/21/2012 9:35:22 AM  |
| Surr: DNOP                                     | 106    | 77.6-140 |      | %REC  | 1   | 10/21/2012 9:35:22 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 1:30:57 AM  |
| Surr: BFB                                      | 90.7   | 84-116   |      | %REC  | 1   | 10/25/2012 1:30:57 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.14   | 0.033    |      | mg/kg | 1   | 10/23/2012 6:39:27 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Barium                                         | 740    | 2.0      |      | mg/Kg | 20  | 10/25/2012 1:57:39 PM  |
| Beryllium                                      | 0.52   | 0.30     |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Cobalt                                         | 2.7    | 0.60     |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Iron                                           | 9800   | 500      |      | mg/Kg | 500 | 11/2/2012 7:03:09 AM   |
| Lead                                           | 2.5    | 0.50     |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Manganese                                      | 520    | 2.0      |      | mg/Kg | 20  | 10/25/2012 1:57:39 PM  |
| Nickel                                         | 7.5    | 1.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Silver                                         | ND     | 0.25     |      | mg/Kg | 1   | 10/29/2012 3:52:27 PM  |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| Zinc                                           | 28     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:09:46 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 7:06:02 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-34 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:30:00 PM

**Lab ID:** 1210856-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Di-n-octyl phthalate                   | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-34 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:30:00 PM

**Lab ID:** 1210856-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Nitrobenzene                           | ND      | 2.5      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2-Nitrophenol                          | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 4-Nitrophenol                          | ND      | 1.3      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Pentachlorophenol                      | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Phenanthrene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Phenol                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Pyrene                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Pyridine                               | ND      | 2.5      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4,5-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| 2,4,6-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 7:06:02 PM |
| Surr: 2,4,6-Tribromophenol             | 90.0    | 21.3-145 |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| Surr: 2-Fluorobiphenyl                 | 90.4    | 20-131   |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| Surr: 2-Fluorophenol                   | 72.4    | 11.9-130 |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| Surr: 4-Terphenyl-d14                  | 96.6    | 25.1-149 |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| Surr: Nitrobenzene-d5                  | 92.6    | 25.6-137 |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| Surr: Phenol-d5                        | 77.7    | 20.3-132 |      | %REC  | 1  | 10/23/2012 7:06:02 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00184 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Toluene                                | 0.00869 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Ethylbenzene                           | 0.00259 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Xylenes, Total                         | 0.00953 | 0.00212  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2,4-Trimethylbenzene                 | 0.00524 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,3,5-Trimethylbenzene                 | 0.00196 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Naphthalene                            | ND      | 0.00212  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1-Methylnaphthalene                    | ND      | 0.00425  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 2-Methylnaphthalene                    | ND      | 0.00425  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Acetone                                | 0.0654  | 0.0106   |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Bromobenzene                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Bromodichloromethane                   | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Bromoform                              | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Bromomethane                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 2-Butanone                             | ND      | 0.0106   |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Carbon tetrachloride                   | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Chlorobenzene                          | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Chloroethane                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-34 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:30:00 PM

**Lab ID:** 1210856-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Chloromethane                          | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 2-Chlorotoluene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Carbon disulfide                       | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 4-Chlorotoluene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| cis-1,2-DCE                            | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Dibromochloromethane                   | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Dibromomethane                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Dichlorodifluoromethane                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1-Dichloroethane                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1-Dichloroethene                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,3-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 2,2-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1-Dichloropropene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Hexachlorobutadiene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Isopropylbenzene                       | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 4-Isopropyltoluene                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Methylene chloride                     | ND     | 0.00318 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| n-Butylbenzene                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 2-Hexanone                             | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| n-Propylbenzene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| sec-Butylbenzene                       | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Styrene                                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| tert-Butylbenzene                      | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| trans-1,2-DCE                          | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Trichloroethene (TCE)                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Trichlorofluoromethane                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-34 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 4:30:00 PM

**Lab ID:** 1210856-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Vinyl chloride                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 3:22:14 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.1   | 70-130  |      | %REC  | 1  | 10/18/2012 3:22:14 PM |
| Surr: 4-Bromofluorobenzene             | 129    | 70-130  |      | %REC  | 1  | 10/18/2012 3:22:14 PM |
| Surr: Dibromofluoromethane             | 99.7   | 70-130  |      | %REC  | 1  | 10/18/2012 3:22:14 PM |
| Surr: Toluene-d8                       | 93.7   | 70-130  |      | %REC  | 1  | 10/18/2012 3:22:14 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-36 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 5:00:00 PM

**Lab ID:** 1210856-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC           |
| Diesel Range Organics (DRO)                    | 56     | 9.6      |      | mg/Kg | 1   | 10/21/2012 3:51:46 PM  |
| Motor Oil Range Organics (MRO)                 | 150    | 48       |      | mg/Kg | 1   | 10/21/2012 3:51:46 PM  |
| Surr: DNOP                                     | 112    | 77.6-140 |      | %REC  | 1   | 10/21/2012 3:51:46 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 12:33:35 AM |
| Surr: BFB                                      | 91.0   | 84-116   |      | %REC  | 1   | 10/25/2012 12:33:35 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.20   | 0.033    |      | mg/kg | 1   | 10/23/2012 6:44:46 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Barium                                         | 690    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:04:20 PM  |
| Beryllium                                      | 0.66   | 0.30     |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Chromium                                       | 21     | 0.60     |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Cobalt                                         | 4.3    | 0.60     |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Iron                                           | 16000  | 500      |      | mg/Kg | 500 | 11/2/2012 7:06:02 AM   |
| Lead                                           | 6.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Manganese                                      | 580    | 2.0      |      | mg/Kg | 20  | 10/25/2012 2:04:20 PM  |
| Nickel                                         | 12     | 1.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/29/2012 3:57:34 PM  |
| Vanadium                                       | 20     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| Zinc                                           | 50     | 5.0      |      | mg/Kg | 2   | 10/25/2012 12:14:48 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 10/23/2012 7:35:28 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-36 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 5:00:00 PM

**Lab ID:** 1210856-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Di-n-octyl phthalate                   | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 1-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2-Methylnaphthalene                    | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| Naphthalene                            | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-36 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 5:00:00 PM

**Lab ID:** 1210856-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 4-Nitroaniline                         | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Nitrobenzene                           | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 2-Nitrophenol                          | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 4-Nitrophenol                          | ND      | 2.5      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Pentachlorophenol                      | ND      | 4.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Phenanthrene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Phenol                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Pyrene                                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Pyridine                               | ND      | 5.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 1,2,4-Trichlorobenzene                 | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 2,4,5-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| 2,4,6-Trichlorophenol                  | ND      | 2.0      |      | mg/Kg | 1  | 10/23/2012 7:35:28 PM  |
| Surr: 2,4,6-Tribromophenol             | 99.4    | 21.3-145 |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| Surr: 2-Fluorobiphenyl                 | 93.4    | 20-131   |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| Surr: 2-Fluorophenol                   | 84.2    | 11.9-130 |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| Surr: 4-Terphenyl-d14                  | 114     | 25.1-149 |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| Surr: Nitrobenzene-d5                  | 92.8    | 25.6-137 |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| Surr: Phenol-d5                        | 92.1    | 20.3-132 |      | %REC  | 1  | 10/23/2012 7:35:28 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00251 | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Toluene                                | 0.00652 | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Ethylbenzene                           | 0.00147 | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Xylenes, Total                         | 0.00610 | 0.00189  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2,4-Trimethylbenzene                 | 0.00313 | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,3,5-Trimethylbenzene                 | 0.00115 | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Naphthalene                            | ND      | 0.00189  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1-Methylnaphthalene                    | ND      | 0.00378  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 2-Methylnaphthalene                    | ND      | 0.00378  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Acetone                                | 0.0535  | 0.00945  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Bromobenzene                           | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Bromodichloromethane                   | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Bromoform                              | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Bromomethane                           | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 2-Butanone                             | ND      | 0.00945  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Carbon tetrachloride                   | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Chlorobenzene                          | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Chloroethane                           | ND      | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-36 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 5:00:00 PM

**Lab ID:** 1210856-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Chloromethane                          | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 2-Chlorotoluene                        | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Carbon disulfide                       | ND     | 0.00945  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 4-Chlorotoluene                        | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| cis-1,2-DCE                            | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Dibromochloromethane                   | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Dibromomethane                         | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Dichlorodifluoromethane                | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1-Dichloroethane                     | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1-Dichloroethene                     | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2-Dichloropropane                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,3-Dichloropropane                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 2,2-Dichloropropane                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1-Dichloropropene                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Hexachlorobutadiene                    | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Isopropylbenzene                       | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 4-Isopropyltoluene                     | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Methylene chloride                     | ND     | 0.00284  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| n-Butylbenzene                         | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 2-Hexanone                             | ND     | 0.00945  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| n-Propylbenzene                        | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| sec-Butylbenzene                       | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Styrene                                | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00945  |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| tert-Butylbenzene                      | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| trans-1,2-DCE                          | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Trichloroethene (TCE)                  | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Trichlorofluoromethane                 | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210856

Date Reported: 11/21/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-36 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 5:00:00 PM

**Lab ID:** 1210856-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Vinyl chloride                         | ND     | 0.000945 |      | mg/Kg | 1  | 10/19/2012 12:06:15 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.3   | 70-130   |      | %REC  | 1  | 10/19/2012 12:06:15 PM |
| Surr: 4-Bromofluorobenzene             | 133    | 70-130   | S    | %REC  | 1  | 10/19/2012 12:06:15 PM |
| Surr: Dibromofluoromethane             | 107    | 70-130   |      | %REC  | 1  | 10/19/2012 12:06:15 PM |
| Surr: Toluene-d8                       | 107    | 70-130   |      | %REC  | 1  | 10/19/2012 12:06:15 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019045  
**Project Name:** 1210856

## Analytical Results Report

|                  |                                     |               |            |                    |                    |           |           |
|------------------|-------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121019045-001                       | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |           |           |
| Client Sample ID | 1210856-001D / SWMU 1-31<br>(0-0.5) | Sampling Time | 3:00 PM    |                    |                    |           |           |
| Matrix           | Soil                                |               |            |                    |                    |           |           |
| Comments         |                                     |               |            |                    |                    |           |           |
| Parameter        | Result                              | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.256                               | mg/Kg         | 0.252      | 10/30/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1.4                                 | Percent       |            | 10/30/2012         | TGT                | %moisture |           |

|                  |                                     |               |            |                    |                    |           |           |
|------------------|-------------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121019045-002                       | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |           |           |
| Client Sample ID | 1210856-002D / SWMU 1-32<br>(0-0.5) | Sampling Time | 3:40 PM    |                    |                    |           |           |
| Matrix           | Soil                                |               |            |                    |                    |           |           |
| Comments         |                                     |               |            |                    |                    |           |           |
| Parameter        | Result                              | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                                  | mg/Kg         | 0.247      | 10/30/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1                                   | Percent       |            | 10/30/2012         | TGT                | %moisture |           |

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019045  
**Project Name:** 1210856

## Analytical Results Report

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|                         |                                         |                      |            |                           |                    |
|-------------------------|-----------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019045-003                           | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210856-003D / SWMU 1-32<br>(0-0.5) DUP | <b>Sampling Time</b> | 3:40 PM    |                           |                    |
| <b>Matrix</b>           | Soil                                    |                      |            |                           |                    |
| <b>Comments</b>         |                                         |                      |            |                           |                    |

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| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.253 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 1.5    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

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|                         |                                     |                      |            |                           |                    |
|-------------------------|-------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019045-004                       | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210856-004D / SWMU 1-33<br>(0-0.5) | <b>Sampling Time</b> | 4:03 PM    |                           |                    |
| <b>Matrix</b>           | Soil                                |                      |            |                           |                    |
| <b>Comments</b>         |                                     |                      |            |                           |                    |

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| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.243 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.2    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

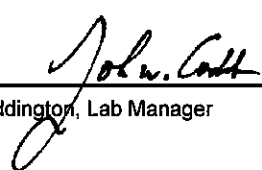
**Batch #:** 121019045  
**Project Name:** 1210856

## Analytical Results Report

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121019045-005                    | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |           |           |
| Client Sample ID | 1210856-005D / SWMU 1-34 (0-0.5) | Sampling Time | 4:30 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.251      | 10/30/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1.6                              | Percent       |            | 10/30/2012         | TGT                | %moisture |           |

|                  |                                  |               |            |                    |                    |           |           |
|------------------|----------------------------------|---------------|------------|--------------------|--------------------|-----------|-----------|
| Sample Number    | 121019045-006                    | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |           |           |
| Client Sample ID | 1210856-006D / SWMU 1-36 (0-0.5) | Sampling Time | 5:00 PM    |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | 0.663                            | mg/Kg         | 0.255      | 10/30/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 1.5                              | Percent       |            | 10/30/2012         | TGT                | %moisture |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4369    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4369            |             | RunNo: 6325                                       |          |             |      |          |      |
| Prep Date: | 10/17/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182210                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 10         |     | 10.00                     |             | 102                                               | 77.6     | 140         |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4369   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4369            |             | RunNo: 6325                                       |          |             |      |          |      |
| Prep Date: | 10/17/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182211                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.4        |     | 5.000                     |             | 87.6                                              | 77.6     | 140         |      |          |      |

|                                |            |     |                           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4397    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        |     | Batch ID: 4397            |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182283                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10  |                           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50  |                           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 10         |     | 10.00                     |             | 103                                               | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4397   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4397            |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182284                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 56         | 10  | 50.00                     | 0           | 111                                               | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.3        |     | 5.000                     |             | 86.9                                              | 77.6     | 140          |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | MB-4404    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182984                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 9.6        |     | 10.00                     |             | 95.6                                              | 77.6     | 140         |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4404   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182985                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.5        |     | 5.000                     |             | 90.3                                              | 77.6     | 140         |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                                         |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210819-001AMS | SampType:      | MS         | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4404       | RunNo:      | 6356                                    |          |           |      |          |      |
| Prep Date: | 10/18/2012     | Analysis Date: | 10/19/2012 | SeqNo:      | 183001                                  | Units:   | %REC      |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.7            |                | 5.899      |             | 79.7                                    | 77.6     | 140       |      |          |      |

|            |                 |                |            |             |                                         |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-----------------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210819-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 8015B: Diesel Range Organics |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4404       | RunNo:      | 6356                                    |          |           |      |          |      |
| Prep Date: | 10/18/2012      | Analysis Date: | 10/19/2012 | SeqNo:      | 183002                                  | Units:   | %REC      |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                                    | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.9             |                | 6.148      |             | 79.2                                    | 77.6     | 140       | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |        |                |            |             |                                  |          |           |      |          |      |
|-------------------------------|--------|----------------|------------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 5ML RB | SampType:      | MBLK       | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBS    | Batch ID:      | R6457      | RunNo:      | 6457                             |          |           |      |          |      |
| Prep Date:                    |        | Analysis Date: | 10/24/2012 | SeqNo:      | 186219                           | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0            |            |             |                                  |          |           |      |          |      |
| Surr: BFB                     | 920    |                | 1000       |             | 91.7                             | 84       | 116       |      |          |      |

|                               |               |                |            |             |                                  |          |           |      |          |      |
|-------------------------------|---------------|----------------|------------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS | SampType:      | LCS        | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSS          | Batch ID:      | R6457      | RunNo:      | 6457                             |          |           |      |          |      |
| Prep Date:                    |               | Analysis Date: | 10/24/2012 | SeqNo:      | 186225                           | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result        | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24            | 5.0            | 25.00      | 0           | 94.5                             | 74       | 117       |      |          |      |
| Surr: BFB                     | 930           |                | 1000       |             | 93.1                             | 84       | 116       |      |          |      |

|                               |                 |                |            |             |                                  |          |           |      |          |      |
|-------------------------------|-----------------|----------------|------------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 1210811-011BMSD | SampType:      | MSD        | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |      |          |      |
| Client ID:                    | BatchQC         | Batch ID:      | R6457      | RunNo:      | 6457                             |          |           |      |          |      |
| Prep Date:                    |                 | Analysis Date: | 10/24/2012 | SeqNo:      | 186249                           | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result          | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 17              | 5.0            | 15.90      | 0           | 110                              | 70       | 130       | 12.7 | 22.1     |      |
| Surr: BFB                     | 590             |                | 636.0      |             | 93.2                             | 84       | 116       | 0    | 0        |      |

|                               |                |                |            |             |                                  |          |           |      |          |      |
|-------------------------------|----------------|----------------|------------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 1210811-011BMS | SampType:      | MS         | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |      |          |      |
| Client ID:                    | BatchQC        | Batch ID:      | R6457      | RunNo:      | 6487                             |          |           |      |          |      |
| Prep Date:                    |                | Analysis Date: | 10/25/2012 | SeqNo:      | 187647                           | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result         | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 15             | 5.0            | 15.91      | 0           | 96.6                             | 70       | 130       |      |          |      |
| Surr: BFB                     | 650            |                | 636.4      |             | 102                              | 84       | 116       |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |         |                           |             |      |                                           |           |              |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                      | mb-4393    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4393            |             |      | RunNo: 6360                               |           |              |          |      |
| Prep Date:                     | 10/18/2012 |         | Analysis Date: 10/18/2012 |             |      | SeqNo: 182928                             |           | Units: mg/Kg |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |      |                                           |           |              |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |      |                                           |           |              |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |      |                                           |           |              |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |      |                                           |           |              |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.1       |         | 50.00                     |             | 92.1                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 44.8       |         | 50.00                     |             | 89.6                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 53.0       |         | 50.00                     |             | 106                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 42.4       |         | 50.00                     |             | 84.8                                      | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4393   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |      | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 8.87       | 1.00 | 10.00                     | 0           | 88.7                                      | 60       | 140          |      |          |      |
| Toluene                     | 8.50       | 1.00 | 10.00                     | 0           | 85.0                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 9.38       | 1.00 | 10.00                     | 0           | 93.8                                      | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 11.0       | 1.00 | 10.00                     | 0           | 110                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 7.70       | 1.00 | 10.00                     | 0           | 77.0                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 44.9       |      | 50.00                     |             | 89.8                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 40.9       |      | 50.00                     |             | 81.7                                      | 70       | 130          |      |          |      |

### Qualifiers:

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4393   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 50.4       |     | 50.00                     |             | 101                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 41.1       |     | 50.00                     |             | 82.2                                      | 70       | 130          |      |          |      |

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4419    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4419            |             | RunNo: 6365                               |          |              |      |          |      |
| Prep Date:                     | 10/19/2012 |         | Analysis Date: 10/19/2012 |             | SeqNo: 183060                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4419    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4419            |             | RunNo: 6365                               |          |              |      |          |      |
| Prep Date:                  | 10/19/2012 |         | Analysis Date: 10/19/2012 |             | SeqNo: 183060                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| 1,4-Dichlorobenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | 0.00320    | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 43.7       |         | 50.00                     |             | 87.4                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 43.0       |         | 50.00                     |             | 85.9                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 50.0       |         | 50.00                     |             | 100                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 51.0       |         | 50.00                     |             | 102                                       | 70       | 130          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | Ics-4419   |      | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4419            |             |      | RunNo: 6365                               |           |              |          |      |
| Prep Date:                  | 10/19/2012 |      | Analysis Date: 10/19/2012 |             |      | SeqNo: 183062                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                     | 11.7       | 1.00 | 12.50                     | 0           | 93.9 | 60                                        | 140       |              |          |      |
| Toluene                     | 10.2       | 1.00 | 12.50                     | 0           | 82.0 | 60                                        | 140       |              |          |      |
| Chlorobenzene               | 11.9       | 1.00 | 12.50                     | 0           | 94.9 | 60                                        | 140       |              |          |      |
| 1,1-Dichloroethene          | 14.5       | 1.00 | 12.50                     | 0           | 116  | 60                                        | 140       |              |          |      |
| Trichloroethene (TCE)       | 9.39       | 1.00 | 12.50                     | 0           | 75.1 | 60                                        | 140       |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 47.4       |      | 50.00                     |             | 94.9 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 41.6       |      | 50.00                     |             | 83.2 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 46.8       |      | 50.00                     |             | 93.6 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 46.1       |      | 50.00                     |             | 92.3 | 70                                        | 130       |              |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |      |                                  |             |                                                  |          |                     |      |          |      |
|-----------------------------|-------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                   | <b>mb-4400</b>    |      | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                  | <b>PBS</b>        |      | Batch ID: <b>4400</b>            |             | RunNo: <b>6384</b>                               |          |                     |      |          |      |
| Prep Date:                  | <b>10/18/2012</b> |      | Analysis Date: <b>10/21/2012</b> |             | SeqNo: <b>183689</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                     | Result            | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Acenaphthylene              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Aniline                     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Anthracene                  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Azobenzene                  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benz(a)anthracene           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(a)pyrene              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(b)fluoranthene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(g,h,i)perylene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzo(k)fluoranthene        | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Benzoic acid                | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Benzyl alcohol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroethoxy)methane  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroethyl)ether     | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-chloroisopropyl)ether | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Bromophenyl phenyl ether  | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Butyl benzyl phthalate      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Carbazole                   | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloroaniline             | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chloronaphthalene         | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chlorophenol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Chrysene                    | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-butyl phthalate        | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-octyl phthalate        | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenzofuran                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| Diethyl phthalate           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dimethyl phthalate          | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dichlorophenol          | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dimethylphenol          | ND                | 0.30 |                                  |             |                                                  |          |                     |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrophenol           | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                |                   |      |           |                                        |      |                     |      |
|----------------------------|-------------------|------|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID                  | <b>mb-4400</b>    |      | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID:      | <b>4400</b>       |      | RunNo:    | <b>6384</b>                            |      |                     |      |
| Prep Date:                 | <b>10/18/2012</b> |      | Analysis Date: | <b>10/21/2012</b> |      | SeqNo:    | <b>183689</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte                    | Result            | PQL  | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |
| Fluoranthene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Fluorene                   | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobenzene          | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorobutadiene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Hexachloroethane           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Isophorone                 | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Methylphenol             | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 3+4-Methylphenol           | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Naphthalene                | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 3-Nitroaniline             | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitroaniline             | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Nitrobenzene               | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 2-Nitrophenol              | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 4-Nitrophenol              | ND                | 0.25 |                |                   |      |           |                                        |      |                     |      |
| Pentachlorophenol          | ND                | 0.40 |                |                   |      |           |                                        |      |                     |      |
| Phenanthrene               | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Phenol                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyrene                     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Pyridine                   | ND                | 0.50 |                |                   |      |           |                                        |      |                     |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                |                   |      |           |                                        |      |                     |      |
| Surr: 2,4,6-Tribromophenol | 3.0               |      | 3.330          |                   | 89.4 | 21.3      | 145                                    |      |                     |      |
| Surr: 2-Fluorobiphenyl     | 1.6               |      | 1.670          |                   | 94.4 | 20        | 131                                    |      |                     |      |
| Surr: 2-Fluorophenol       | 2.9               |      | 3.330          |                   | 88.5 | 11.9      | 130                                    |      |                     |      |
| Surr: 4-Terphenyl-d14      | 1.3               |      | 1.670          |                   | 79.3 | 25.1      | 149                                    |      |                     |      |
| Surr: Nitrobenzene-d5      | 1.7               |      | 1.670          |                   | 99.1 | 25.6      | 137                                    |      |                     |      |
| Surr: Phenol-d5            | 3.1               |      | 3.330          |                   | 91.7 | 20.3      | 132                                    |      |                     |      |

|            |                   |     |                |                   |      |           |                                        |      |                     |      |
|------------|-------------------|-----|----------------|-------------------|------|-----------|----------------------------------------|------|---------------------|------|
| Sample ID  | <b>lcs-4400</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8270C: Semivolatiles</b> |      |                     |      |
| Client ID: | <b>LCSS</b>       |     | Batch ID:      | <b>4400</b>       |      | RunNo:    | <b>6384</b>                            |      |                     |      |
| Prep Date: | <b>10/18/2012</b> |     | Analysis Date: | <b>10/21/2012</b> |      | SeqNo:    | <b>183690</b>                          |      | Units: <b>mg/Kg</b> |      |
| Analyte    | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                              | %RPD | RPDLimit            | Qual |

### Qualifiers:

|   |                                            |    |                                                    |
|---|--------------------------------------------|----|----------------------------------------------------|
| * | Value exceeds Maximum Contaminant Level.   | B  | Analyte detected in the associated Method Blank    |
| E | Value above quantitation range             | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit                |
| P | Sample pH greater than 2                   | R  | RPD outside accepted recovery limits               |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |              |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4400   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       | Batch ID: 4400            |           |             | RunNo: 6384                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012 | Analysis Date: 10/21/2012 |           |             | SeqNo: 183690                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.4        | 0.20                      | 1.670     | 0           | 84.0                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.7        | 0.50                      | 3.330     | 0           | 81.7                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.5        | 0.20                      | 3.330     | 0           | 76.1                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20                      | 1.670     | 0           | 75.4                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.5        | 0.50                      | 1.670     | 0           | 89.7                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20                      | 1.670     | 0           | 83.6                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.5        | 0.25                      | 3.330     | 0           | 74.6                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40                      | 3.330     | 0           | 64.2                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5        | 0.20                      | 3.330     | 0           | 74.2                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.3        | 0.20                      | 1.670     | 0           | 76.3                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4        | 0.20                      | 1.670     | 0           | 85.3                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.6        |                           | 3.330     |             | 109                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.8        |                           | 1.670     |             | 109                                       | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 3.1        |                           | 3.330     |             | 91.8                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5        |                           | 1.670     |             | 87.1                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.8        |                           | 1.670     |             | 108                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.2        |                           | 3.330     |             | 95.9                                      | 20.3     | 132          |      |          |      |

|                            |                |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|----------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210811-002CMS |      | SampType: MS              |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | BatchQC        |      | Batch ID: 4400            |             | RunNo: 6384                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012     |      | Analysis Date: 10/22/2012 |             | SeqNo: 183711                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2            | 0.20 | 1.673                     | 0           | 71.4                                      | 25.6     | 142          |      |          |      |
| 4-Chloro-3-methylphenol    | 2.4            | 0.50 | 3.337                     | 0           | 71.1                                      | 63.7     | 100          |      |          |      |
| 2-Chlorophenol             | 2.4            | 0.20 | 3.337                     | 0           | 72.7                                      | 22.2     | 126          |      |          |      |
| 1,4-Dichlorobenzene        | 1.2            | 0.20 | 1.673                     | 0           | 70.8                                      | 12.4     | 115          |      |          |      |
| 2,4-Dinitrotoluene         | 1.3            | 0.50 | 1.673                     | 0           | 78.0                                      | 14.9     | 142          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4            | 0.20 | 1.673                     | 0           | 81.4                                      | 13.9     | 136          |      |          |      |
| 4-Nitrophenol              | 2.4            | 0.25 | 3.337                     | 0.09450     | 69.3                                      | 36.7     | 130          |      |          |      |
| Pentachlorophenol          | 2.2            | 0.40 | 3.337                     | 0           | 65.2                                      | 15.8     | 113          |      |          |      |
| Phenol                     | 2.3            | 0.20 | 3.337                     | 0           | 69.9                                      | 25.1     | 124          |      |          |      |
| Pyrene                     | 1.1            | 0.20 | 1.673                     | 0           | 68.6                                      | 35.8     | 124          |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.4            | 0.20 | 1.673                     | 0           | 84.8                                      | 30       | 113          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0            |      | 3.337                     |             | 89.9                                      | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5            |      | 1.673                     |             | 88.8                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.7            |      | 3.337                     |             | 80.1                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3            |      | 1.673                     |             | 76.2                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.8            |      | 1.673                     |             | 105                                       | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0            |      | 3.337                     |             | 89.7                                      | 20.3     | 132          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                 |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|-----------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1210811-002CMSD |      | SampType: MSD             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | BatchQC         |      | Batch ID: 4400            |             | RunNo: 6384                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012      |      | Analysis Date: 10/22/2012 |             | SeqNo: 183712                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result          | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2             | 0.20 | 1.674                     | 0           | 73.4                                      | 25.6     | 142          | 2.79 | 22       |      |
| 4-Chloro-3-methylphenol    | 2.3             | 0.50 | 3.338                     | 0           | 68.2                                      | 63.7     | 100          | 3.99 | 27.3     |      |
| 2-Chlorophenol             | 2.4             | 0.20 | 3.338                     | 0           | 71.5                                      | 22.2     | 126          | 1.58 | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1             | 0.20 | 1.674                     | 0           | 66.1                                      | 12.4     | 115          | 6.82 | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3             | 0.50 | 1.674                     | 0           | 80.4                                      | 14.9     | 142          | 3.08 | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3             | 0.20 | 1.674                     | 0           | 75.8                                      | 13.9     | 136          | 7.08 | 22.6     |      |
| 4-Nitrophenol              | 2.5             | 0.25 | 3.338                     | 0.09450     | 73.3                                      | 36.7     | 130          | 5.48 | 20       |      |
| Pentachlorophenol          | 2.1             | 0.40 | 3.338                     | 0           | 62.8                                      | 15.8     | 113          | 3.74 | 27.1     |      |
| Phenol                     | 2.1             | 0.20 | 3.338                     | 0           | 64.0                                      | 25.1     | 124          | 8.86 | 32.2     |      |
| Pyrene                     | 1.2             | 0.20 | 1.674                     | 0           | 71.6                                      | 35.8     | 124          | 4.33 | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4             | 0.20 | 1.674                     | 0           | 81.2                                      | 30       | 113          | 4.27 | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 2.8             |      | 3.338                     |             | 83.7                                      | 21.3     | 145          | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5             |      | 1.674                     |             | 90.7                                      | 20       | 131          | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 2.6             |      | 3.338                     |             | 79.2                                      | 11.9     | 130          | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.3             |      | 1.674                     |             | 76.3                                      | 25.1     | 149          | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 1.6             |      | 1.674                     |             | 96.8                                      | 25.6     | 137          | 0    | 0        |      |
| Surr: Phenol-d5            | 2.9             |      | 3.338                     |             | 85.8                                      | 20.3     | 132          | 0    | 0        |      |

|                            |            |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | lcs-4422   |      | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       |      | Batch ID: 4422            |             | RunNo: 6445                               |          |              |      |          |      |
| Prep Date:                 | 10/19/2012 |      | Analysis Date: 10/23/2012 |             | SeqNo: 185414                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2        | 0.20 | 1.670                     | 0           | 74.7                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6        | 0.50 | 3.330                     | 0           | 76.9                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.5        | 0.20 | 3.330                     | 0           | 75.3                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20 | 1.670                     | 0           | 78.0                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.3        | 0.50 | 1.670                     | 0           | 79.3                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20 | 1.670                     | 0           | 83.1                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.4        | 0.25 | 3.330                     | 0           | 73.5                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40 | 3.330                     | 0           | 61.6                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.4        | 0.20 | 3.330                     | 0           | 72.5                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.3        | 0.20 | 1.670                     | 0           | 77.3                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.5        | 0.20 | 1.670                     | 0           | 91.6                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.4        |      | 3.330                     |             | 103                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6        |      | 1.670                     |             | 95.5                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.8        |      | 3.330                     |             | 83.7                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3        |      | 1.670                     |             | 79.6                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7        |      | 1.670                     |             | 99.9                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0        |      | 3.330                     |             | 89.0                                      | 20.3     | 132          |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|--------------|------|----------|------|
| Sample ID                   | mb-4422    |      | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |              |      |          |      |
| Client ID:                  | PBS        |      | Batch ID: 4422            |             |      | RunNo: 6445                               |              |      |          |      |
| Prep Date:                  | 10/19/2012 |      | Analysis Date: 10/23/2012 |             |      | SeqNo: 185416                             | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Acenaphthylene              | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Aniline                     | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Anthracene                  | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Azobenzene                  | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benz(a)anthracene           | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benzo(a)pyrene              | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Benzoic acid                | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| Benzyl alcohol              | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Butyl benzyl phthalate      | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Carbazole                   | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| 4-Chloroaniline             | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| 2-Chloronaphthalene         | ND         | 0.25 |                           |             |      |                                           |              |      |          |      |
| 2-Chlorophenol              | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Chrysene                    | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Di-n-butyl phthalate        | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| Di-n-octyl phthalate        | ND         | 0.40 |                           |             |      |                                           |              |      |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Dibenzofuran                | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25 |                           |             |      |                                           |              |      |          |      |
| Diethyl phthalate           | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| Dimethyl phthalate          | ND         | 0.20 |                           |             |      |                                           |              |      |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40 |                           |             |      |                                           |              |      |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30 |                           |             |      |                                           |              |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40 |                           |             |      |                                           |              |      |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50 |                           |             |      |                                           |              |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                                  |             |      |                                                  |           |                     |          |      |
|----------------------------|-------------------|------|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID                  | <b>mb-4422</b>    |      | SampType: <b>MBLK</b>            |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |           |                     |          |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |           |                     |          |      |
| Prep Date:                 | <b>10/19/2012</b> |      | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185416</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte                    | Result            | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |
| Fluoranthene               | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Fluorene                   | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Hexachlorobenzene          | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Hexachlorobutadiene        | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Hexachlorocyclopentadiene  | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Hexachloroethane           | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Indeno(1,2,3-cd)pyrene     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Isophorone                 | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 1-Methylnaphthalene        | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Methylnaphthalene        | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Methylphenol             | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 3+4-Methylphenol           | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| N-Nitrosodi-n-propylamine  | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| N-Nitrosodiphenylamine     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Naphthalene                | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Nitroaniline             | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 3-Nitroaniline             | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 4-Nitroaniline             | ND                | 0.40 |                                  |             |      |                                                  |           |                     |          |      |
| Nitrobenzene               | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Nitrophenol              | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 4-Nitrophenol              | ND                | 0.25 |                                  |             |      |                                                  |           |                     |          |      |
| Pentachlorophenol          | ND                | 0.40 |                                  |             |      |                                                  |           |                     |          |      |
| Phenanthrene               | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Phenol                     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Pyrene                     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Pyridine                   | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Surr: 2,4,6-Tribromophenol | 3.9               |      | 3.330                            |             | 117  | 21.3                                             | 145       |                     |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6               |      | 1.670                            |             | 98.4 | 20                                               | 131       |                     |          |      |
| Surr: 2-Fluorophenol       | 3.1               |      | 3.330                            |             | 91.6 | 11.9                                             | 130       |                     |          |      |
| Surr: 4-Terphenyl-d14      | 1.5               |      | 1.670                            |             | 91.7 | 25.1                                             | 149       |                     |          |      |
| Surr: Nitrobenzene-d5      | 1.8               |      | 1.670                            |             | 109  | 25.6                                             | 137       |                     |          |      |
| Surr: Phenol-d5            | 3.2               |      | 3.330                            |             | 96.3 | 20.3                                             | 132       |                     |          |      |

|            |                       |     |                                  |             |      |                                                  |           |                     |          |      |
|------------|-----------------------|-----|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID  | <b>1210858-004Cms</b> |     | SampType: <b>MS</b>              |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |           |                     |          |      |
| Client ID: | <b>BatchQC</b>        |     | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |           |                     |          |      |
| Prep Date: | <b>10/19/2012</b>     |     | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185433</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte    | Result                | PQL | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |

### Qualifiers:

|   |                                            |    |                                                    |
|---|--------------------------------------------|----|----------------------------------------------------|
| * | Value exceeds Maximum Contaminant Level.   | B  | Analyte detected in the associated Method Blank    |
| E | Value above quantitation range             | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit                |
| P | Sample pH greater than 2                   | R  | RPD outside accepted recovery limits               |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                |      |                           |             |      |                                           |           |              |          |      |
|----------------------------|----------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                  | 1210858-004Cms |      | SampType: MS              |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |              |          |      |
| Client ID:                 | BatchQC        |      | Batch ID: 4422            |             |      | RunNo: 6445                               |           |              |          |      |
| Prep Date:                 | 10/19/2012     |      | Analysis Date: 10/23/2012 |             |      | SeqNo: 185433                             |           | Units: mg/Kg |          |      |
| Analyte                    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Acenaphthene               | 1.2            | 0.20 | 1.659                     | 0           | 69.3 | 25.6                                      | 142       |              |          |      |
| 4-Chloro-3-methylphenol    | 2.2            | 0.50 | 3.309                     | 0           | 67.6 | 63.7                                      | 100       |              |          |      |
| 2-Chlorophenol             | 2.0            | 0.20 | 3.309                     | 0           | 61.7 | 22.2                                      | 126       |              |          |      |
| 1,4-Dichlorobenzene        | 1.1            | 0.20 | 1.659                     | 0           | 63.6 | 12.4                                      | 115       |              |          |      |
| 2,4-Dinitrotoluene         | 1.2            | 0.50 | 1.659                     | 0           | 74.6 | 14.9                                      | 142       |              |          |      |
| N-Nitrosodi-n-propylamine  | 1.1            | 0.20 | 1.659                     | 0           | 65.9 | 13.9                                      | 136       |              |          |      |
| 4-Nitrophenol              | 2.2            | 0.25 | 3.309                     | 0.09121     | 63.6 | 36.7                                      | 130       |              |          |      |
| Pentachlorophenol          | 1.9            | 0.40 | 3.309                     | 0           | 56.5 | 15.8                                      | 113       |              |          |      |
| Phenol                     | 2.1            | 0.20 | 3.309                     | 0           | 63.9 | 25.1                                      | 124       |              |          |      |
| Pyrene                     | 1.1            | 0.20 | 1.659                     | 0           | 68.6 | 35.8                                      | 124       |              |          |      |
| 1,2,4-Trichlorobenzene     | 1.3            | 0.20 | 1.659                     | 0           | 78.0 | 30                                        | 113       |              |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0            |      | 3.309                     |             | 90.3 | 21.3                                      | 145       |              |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5            |      | 1.659                     |             | 90.0 | 20                                        | 131       |              |          |      |
| Surr: 2-Fluorophenol       | 2.5            |      | 3.309                     |             | 74.2 | 11.9                                      | 130       |              |          |      |
| Surr: 4-Terphenyl-d14      | 1.3            |      | 1.659                     |             | 80.0 | 25.1                                      | 149       |              |          |      |
| Surr: Nitrobenzene-d5      | 1.7            |      | 1.659                     |             | 101  | 25.6                                      | 137       |              |          |      |
| Surr: Phenol-d5            | 2.8            |      | 3.309                     |             | 84.0 | 20.3                                      | 132       |              |          |      |

|                            |                 |      |                           |             |      |                                           |           |              |          |      |
|----------------------------|-----------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                  | 1210858-004Cmsd |      | SampType: MSD             |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |              |          |      |
| Client ID:                 | BatchQC         |      | Batch ID: 4422            |             |      | RunNo: 6445                               |           |              |          |      |
| Prep Date:                 | 10/19/2012      |      | Analysis Date: 10/23/2012 |             |      | SeqNo: 185434                             |           | Units: mg/Kg |          |      |
| Analyte                    | Result          | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Acenaphthene               | 1.2             | 0.20 | 1.681                     | 0           | 71.3 | 25.6                                      | 142       | 4.05         | 22       |      |
| 4-Chloro-3-methylphenol    | 2.3             | 0.50 | 3.351                     | 0           | 69.5 | 63.7                                      | 100       | 4.10         | 27.3     |      |
| 2-Chlorophenol             | 2.3             | 0.20 | 3.351                     | 0           | 68.2 | 22.2                                      | 126       | 11.4         | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1             | 0.20 | 1.681                     | 0           | 63.4 | 12.4                                      | 115       | 1.02         | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3             | 0.50 | 1.681                     | 0           | 77.0 | 14.9                                      | 142       | 4.43         | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3             | 0.20 | 1.681                     | 0           | 75.9 | 13.9                                      | 136       | 15.3         | 22.6     |      |
| 4-Nitrophenol              | 2.3             | 0.25 | 3.351                     | 0.09121     | 64.9 | 36.7                                      | 130       | 3.21         | 20       |      |
| Pentachlorophenol          | 2.0             | 0.40 | 3.351                     | 0           | 59.9 | 15.8                                      | 113       | 7.18         | 27.1     |      |
| Phenol                     | 2.2             | 0.20 | 3.351                     | 0           | 66.5 | 25.1                                      | 124       | 5.18         | 32.2     |      |
| Pyrene                     | 1.2             | 0.20 | 1.681                     | 0           | 70.8 | 35.8                                      | 124       | 4.36         | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4             | 0.20 | 1.681                     | 0           | 80.5 | 30                                        | 113       | 4.34         | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 3.1             |      | 3.351                     |             | 93.6 | 21.3                                      | 145       | 0            | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5             |      | 1.681                     |             | 91.0 | 20                                        | 131       | 0            | 0        |      |
| Surr: 2-Fluorophenol       | 2.5             |      | 3.351                     |             | 75.3 | 11.9                                      | 130       | 0            | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.4             |      | 1.681                     |             | 81.4 | 25.1                                      | 149       | 0            | 0        |      |
| Surr: Nitrobenzene-d5      | 1.6             |      | 1.681                     |             | 96.9 | 25.6                                      | 137       | 0            | 0        |      |
| Surr: Phenol-d5            | 2.9             |      | 3.351                     |             | 85.9 | 20.3                                      | 132       | 0            | 0        |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4426    |       | SampType: MBLK            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185363                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4426   |       | SampType: LCS             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185364                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 101                                | 80       | 120          |      |          |      |

|            |                |       |                           |             |      |                                    |           |              |          |      |
|------------|----------------|-------|---------------------------|-------------|------|------------------------------------|-----------|--------------|----------|------|
| Sample ID  | 1210859-002CMS |       | SampType: MS              |             |      | TestCode: EPA Method 7471: Mercury |           |              |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4426            |             |      | RunNo: 6443                        |           |              |          |      |
| Prep Date: | 10/19/2012     |       | Analysis Date: 10/23/2012 |             |      | SeqNo: 185391                      |           | Units: mg/kg |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC | LowLimit                           | HighLimit | %RPD         | RPDLimit | Qual |
| Mercury    | 0.18           | 0.033 | 0.1654                    | 0.01134     | 102  | 75                                 | 125       |              |          |      |

|            |                 |       |                           |             |                                    |          |              |      |          |      |
|------------|-----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210859-002CMSD |       | SampType: MSD             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012      |       | Analysis Date: 10/23/2012 |             | SeqNo: 185392                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result          | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.18            | 0.033 | 0.1685                    | 0.01134     | 99.0                               | 75       | 125          | 1.06 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4440    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186820                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Silver    | 0.64   | 0.25 |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4440   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186821                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 25     | 2.5  | 25.00     | 0.6605      | 96.6 | 80       | 120       |      |          |      |
| Arsenic   | 25     | 2.5  | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Barium    | 25     | 0.10 | 25.00     | 0           | 98.6 | 80       | 120       |      |          |      |
| Beryllium | 26     | 0.15 | 25.00     | 0           | 103  | 80       | 120       |      |          |      |
| Cadmium   | 25     | 0.10 | 25.00     | 0           | 98.8 | 80       | 120       |      |          |      |
| Chromium  | 25     | 0.30 | 25.00     | 0           | 99.0 | 80       | 120       |      |          |      |
| Cobalt    | 24     | 0.30 | 25.00     | 0           | 95.6 | 80       | 120       |      |          |      |
| Lead      | 24     | 0.25 | 25.00     | 0           | 96.6 | 80       | 120       |      |          |      |
| Manganese | 24     | 0.10 | 25.00     | 0.05400     | 96.6 | 80       | 120       |      |          |      |
| Nickel    | 24     | 0.50 | 25.00     | 0           | 94.2 | 80       | 120       |      |          |      |
| Selenium  | 24     | 2.5  | 25.00     | 0           | 94.1 | 80       | 120       |      |          |      |
| Silver    | 6.0    | 0.25 | 5.000     | 0.6425      | 106  | 80       | 120       |      |          | B    |
| Vanadium  | 25     | 2.5  | 25.00     | 0           | 102  | 80       | 120       |      |          |      |
| Zinc      | 24     | 2.5  | 25.00     | 0           | 97.3 | 80       | 120       |      |          |      |

|            |                |                |            |           |                               |        |       |  |  |  |
|------------|----------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:    | 186845                        | Units: | mg/Kg |  |  |  |

| Analyte | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Arsenic | 23     | 2.5  | 24.93     | 2.265       | 83.0 | 75       | 125       |      |          |      |
| Cadmium | 20     | 0.10 | 24.93     | 0.03505     | 80.0 | 75       | 125       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:      | 6493                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:      | 186845                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chromium   | 25             | 0.30           | 24.93      | 3.270       | 86.6                          | 75       | 125       |      |          |      |
| Selenium   | 17             | 2.5            | 24.93      | 0           | 68.1                          | 75       | 125       |      |          | S    |

|            |                 |                |            |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4440       | RunNo:      | 6493                          |          |           |      |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/25/2012 | SeqNo:      | 186849                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 23              | 2.5            | 24.96      | 2.265       | 81.7                          | 75       | 125       | 1.34 | 20       |      |
| Cadmium    | 19              | 0.10           | 24.96      | 0.03505     | 77.2                          | 75       | 125       | 3.39 | 20       |      |
| Chromium   | 24              | 0.30           | 24.96      | 3.270       | 84.2                          | 75       | 125       | 2.39 | 20       |      |
| Selenium   | 15              | 2.5            | 24.96      | 0           | 61.4                          | 75       | 125       | 10.1 | 20       | S    |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4440    | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188992                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | ND         | 0.25           |            |             |                               |          |           |      |          |      |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4440   | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188993                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 5.7        | 0.25           | 5.000      | 0           | 113                           | 80       | 120       |      |          |      |

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/29/2012 | SeqNo:      | 189043                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.3            | 0.25           | 4.987      | 0           | 85.5                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210771-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4440       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/29/2012 | SeqNo:      | 189044                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.0             | 0.25           | 4.992      | 0           | 80.9                          | 75       | 125       | 5.39 | 20       |      |

### Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210856

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |     |                          |             |                                         |          |              |      |          |      |
|------------|------------|-----|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4440    |     | SampType: MBLK           |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | PBS        |     | Batch ID: 4440           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |     | Analysis Date: 11/2/2012 |             | SeqNo: 192431                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | ND         | 1.0 |                          |             |                                         |          |              |      |          |      |

|            |            |     |                          |             |                                         |          |              |      |          |      |
|------------|------------|-----|--------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4440   |     | SampType: LCS            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4440           |             | RunNo: 6670                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |     | Analysis Date: 11/2/2012 |             | SeqNo: 192432                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL | SPK value                | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Iron       | 27         | 1.0 | 25.00                    | 0           | 109                                     | 80       | 120          |      |          |      |

### Qualifiers:

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P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1210856

Received by/date:

10/18/12

Logged By: Michelle Garcia

10/18/2012 8:00:00 AM

Michelle Garcia

Completed By: Michelle Garcia

10/18/2012 8:42:47 AM

Michelle Garcia

Reviewed By:

10/18/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒  
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐  
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
7. Sample(s) in proper container(s)? Yes ☒ No ☐  
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
12. Were any sample containers received broken? Yes ☐ No ☒  
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0                     | Good      | Yes         |         |           |           |



Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: ROUTE 3 Box 7

GALLUP, NM 87301

Phone #: 505-722-0217

email or Fax#: SCOTT CROUCH-RPS

Turn-Around Time:

☒ Standard    ☐ Rush

Project Name:

Project #:

SWMU No. 1

Project Manager:

SCOTT CROUCH - RPS

QA/QC Package:

☒ Standard    ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP    ☐ Other

☒ EDD (Type) EXCEL

Sampler: TRACY PAYNE - RPS

On Ice: ☒ Yes    ☐ No

Sample Temperature: 10

Container Type and #

Preservative Type

HEAL No. 1210856

Date

Time

Matrix

Sample Request ID

10/16/12

1630

SOILS

SWMU 1-34(0-0.5')

↓

↓

↓

↓

1700

↓

↓

↓

SWMU 1-36(0-0.5')

↓

↓

↓

2 VIALS

2 VIALS

3 TARS

2 VIALS

2 VIALS

3 TARS

SOBI

MEOH

-

SOBI

MEOH

-

- 005

- 006

Date

Time

Relinquished by:

10/17/12

0751

IX 7

Date

Time

Relinquished by:

10/18/12

0800

Received by:

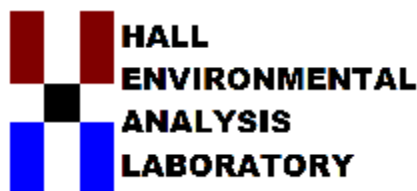
Date

Time

10/18/12

0800

Remarks:



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 13, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210858

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:00:00 AM

**Lab ID:** 1210858-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 1:57:12 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/19/2012 1:57:12 PM |
| Surr: DNOP                                     | 96.0   | 77.6-140 |      | %REC  | 1   | 10/19/2012 1:57:12 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 1:59:36 AM |
| Surr: BFB                                      | 90.4   | 84-116   |      | %REC  | 1   | 10/25/2012 1:59:36 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:46:33 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Barium                                         | 700    | 2.0      |      | mg/Kg | 20  | 10/25/2012 4:53:22 PM |
| Beryllium                                      | 0.35   | 0.30     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Chromium                                       | 3.4    | 0.60     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Cobalt                                         | 1.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Iron                                           | 3600   | 500      |      | mg/Kg | 500 | 10/25/2012 4:56:13 PM |
| Lead                                           | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Manganese                                      | 300    | 2.0      |      | mg/Kg | 20  | 10/25/2012 4:53:22 PM |
| Nickel                                         | 3.6    | 1.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Vanadium                                       | 11     | 5.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| Zinc                                           | 11     | 5.0      |      | mg/Kg | 2   | 10/25/2012 4:50:20 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:04:59 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:00:00 AM

**Lab ID:** 1210858-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:00:00 AM

**Lab ID:** 1210858-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:04:59 PM  |
| Surr: 2,4,6-Tribromophenol             | 66.5    | 21.3-145 |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| Surr: 2-Fluorobiphenyl                 | 67.0    | 20-131   |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| Surr: 2-Fluorophenol                   | 60.4    | 11.9-130 |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| Surr: 4-Terphenyl-d14                  | 62.7    | 25.1-149 |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| Surr: Nitrobenzene-d5                  | 71.7    | 25.6-137 |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| Surr: Phenol-d5                        | 68.7    | 20.3-132 |      | %REC  | 1  | 10/23/2012 8:04:59 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00109 | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Toluene                                | 0.00687 | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Ethylbenzene                           | 0.00386 | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Xylenes, Total                         | 0.0210  | 0.00144  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2,4-Trimethylbenzene                 | 0.00455 | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,3,5-Trimethylbenzene                 | 0.00192 | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Naphthalene                            | ND      | 0.00144  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1-Methylnaphthalene                    | ND      | 0.00288  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 2-Methylnaphthalene                    | ND      | 0.00288  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Acetone                                | 0.148   | 0.00719  | E    | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Bromobenzene                           | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Bromodichloromethane                   | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Bromoform                              | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Bromomethane                           | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 2-Butanone                             | ND      | 0.00719  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Carbon tetrachloride                   | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Chlorobenzene                          | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Chloroethane                           | ND      | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:00:00 AM

**Lab ID:** 1210858-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Chloromethane                          | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 2-Chlorotoluene                        | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Carbon disulfide                       | ND     | 0.00719  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 4-Chlorotoluene                        | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| cis-1,2-DCE                            | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Dibromochloromethane                   | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Dibromomethane                         | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Dichlorodifluoromethane                | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1-Dichloroethane                     | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1-Dichloroethene                     | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2-Dichloropropane                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,3-Dichloropropane                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 2,2-Dichloropropane                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1-Dichloropropene                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Hexachlorobutadiene                    | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Isopropylbenzene                       | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 4-Isopropyltoluene                     | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Methylene chloride                     | ND     | 0.00216  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| n-Butylbenzene                         | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 2-Hexanone                             | ND     | 0.00719  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| n-Propylbenzene                        | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| sec-Butylbenzene                       | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Styrene                                | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00719  |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| tert-Butylbenzene                      | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| trans-1,2-DCE                          | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Trichloroethene (TCE)                  | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Trichlorofluoromethane                 | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:00:00 AM

**Lab ID:** 1210858-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Vinyl chloride                         | ND     | 0.000719 |      | mg/Kg | 1  | 10/19/2012 12:37:00 PM |
| Surr: 1,2-Dichloroethane-d4            | 86.5   | 70-130   |      | %REC  | 1  | 10/19/2012 12:37:00 PM |
| Surr: 4-Bromofluorobenzene             | 121    | 70-130   |      | %REC  | 1  | 10/19/2012 12:37:00 PM |
| Surr: Dibromofluoromethane             | 97.8   | 70-130   |      | %REC  | 1  | 10/19/2012 12:37:00 PM |
| Surr: Toluene-d8                       | 102    | 70-130   |      | %REC  | 1  | 10/19/2012 12:37:00 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:10:00 AM

**Lab ID:** 1210858-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 2:22:14 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/19/2012 2:22:14 PM |
| Surr: DNOP                                     | 92.8   | 77.6-140 |      | %REC  | 1   | 10/19/2012 2:22:14 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 2:28:14 AM |
| Surr: BFB                                      | 89.9   | 84-116   |      | %REC  | 1   | 10/25/2012 2:28:14 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:48:19 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: ELS          |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Barium                                         | 340    | 2.0      |      | mg/Kg | 20  | 10/25/2012 5:06:32 PM |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Chromium                                       | 9.2    | 1.5      |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Cobalt                                         | 3.8    | 1.5      |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 10/25/2012 5:20:33 PM |
| Lead                                           | 6.1    | 1.2      |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Manganese                                      | 1500   | 5.0      |      | mg/Kg | 50  | 10/29/2012 4:18:19 PM |
| Nickel                                         | 6.4    | 2.5      |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Vanadium                                       | 20     | 12       |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| Zinc                                           | 15     | 12       |      | mg/Kg | 5   | 10/29/2012 4:05:34 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 8:34:29 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:10:00 AM

**Lab ID:** 1210858-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:10:00 AM

**Lab ID:** 1210858-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 8:34:29 PM |
| Surr: 2,4,6-Tribromophenol             | 77.5    | 21.3-145 |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| Surr: 2-Fluorobiphenyl                 | 80.3    | 20-131   |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| Surr: 2-Fluorophenol                   | 73.9    | 11.9-130 |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| Surr: 4-Terphenyl-d14                  | 71.0    | 25.1-149 |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| Surr: Nitrobenzene-d5                  | 82.0    | 25.6-137 |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| Surr: Phenol-d5                        | 78.3    | 20.3-132 |      | %REC  | 1  | 10/23/2012 8:34:29 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00160 | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Toluene                                | 0.00190 | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Ethylbenzene                           | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Xylenes, Total                         | 0.00154 | 0.00149  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Naphthalene                            | ND      | 0.00149  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1-Methylnaphthalene                    | ND      | 0.00299  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 2-Methylnaphthalene                    | ND      | 0.00299  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Acetone                                | 0.0512  | 0.00747  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Bromobenzene                           | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Bromodichloromethane                   | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Bromoform                              | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Bromomethane                           | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 2-Butanone                             | ND      | 0.00747  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Carbon tetrachloride                   | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Chlorobenzene                          | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Chloroethane                           | ND      | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:10:00 AM

**Lab ID:** 1210858-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Chloromethane                          | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 2-Chlorotoluene                        | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Carbon disulfide                       | ND     | 0.00747  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 4-Chlorotoluene                        | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| cis-1,2-DCE                            | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Dibromochloromethane                   | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Dibromomethane                         | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Dichlorodifluoromethane                | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1-Dichloroethane                     | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1-Dichloroethene                     | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2-Dichloropropane                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,3-Dichloropropane                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 2,2-Dichloropropane                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1-Dichloropropene                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Hexachlorobutadiene                    | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Isopropylbenzene                       | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 4-Isopropyltoluene                     | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Methylene chloride                     | ND     | 0.00224  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| n-Butylbenzene                         | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 2-Hexanone                             | ND     | 0.00747  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| n-Propylbenzene                        | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| sec-Butylbenzene                       | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Styrene                                | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00747  |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| tert-Butylbenzene                      | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| trans-1,2-DCE                          | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Trichloroethene (TCE)                  | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Trichlorofluoromethane                 | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-18 (1-1.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:10:00 AM

**Lab ID:** 1210858-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Vinyl chloride                         | ND     | 0.000747 |      | mg/Kg | 1  | 10/18/2012 4:54:54 PM |
| Surr: 1,2-Dichloroethane-d4            | 86.8   | 70-130   |      | %REC  | 1  | 10/18/2012 4:54:54 PM |
| Surr: 4-Bromofluorobenzene             | 102    | 70-130   |      | %REC  | 1  | 10/18/2012 4:54:54 PM |
| Surr: Dibromofluoromethane             | 105    | 70-130   |      | %REC  | 1  | 10/18/2012 4:54:54 PM |
| Surr: Toluene-d8                       | 97.2   | 70-130   |      | %REC  | 1  | 10/18/2012 4:54:54 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-19 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:35:00 AM

**Lab ID:** 1210858-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 6:14:50 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 52       |      | mg/Kg | 1   | 10/21/2012 6:14:50 AM |
| Surr: DNOP                                     | 104    | 77.6-140 |      | %REC  | 1   | 10/21/2012 6:14:50 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 2:57:02 AM |
| Surr: BFB                                      | 89.7   | 84-116   |      | %REC  | 1   | 10/25/2012 2:57:02 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.056  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:50:07 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Barium                                         | 530    | 2.0      |      | mg/Kg | 20  | 10/25/2012 5:29:06 PM |
| Beryllium                                      | 0.68   | 0.30     |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Chromium                                       | 13     | 0.60     |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 10/25/2012 5:31:45 PM |
| Lead                                           | 2.8    | 0.50     |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Manganese                                      | 550    | 2.0      |      | mg/Kg | 20  | 10/25/2012 5:29:06 PM |
| Nickel                                         | 6.5    | 1.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 10/31/2012 1:29:43 PM |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| Zinc                                           | 25     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:26:14 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 9:03:58 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-19 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:35:00 AM

**Lab ID:** 1210858-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-19 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:35:00 AM

**Lab ID:** 1210858-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:03:58 PM |
| Surr: 2,4,6-Tribromophenol             | 80.0    | 21.3-145 |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| Surr: 2-Fluorobiphenyl                 | 88.3    | 20-131   |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| Surr: 2-Fluorophenol                   | 82.3    | 11.9-130 |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| Surr: 4-Terphenyl-d14                  | 75.6    | 25.1-149 |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| Surr: Nitrobenzene-d5                  | 91.0    | 25.6-137 |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| Surr: Phenol-d5                        | 85.5    | 20.3-132 |      | %REC  | 1  | 10/23/2012 9:03:58 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00225 | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Toluene                                | 0.00290 | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Ethylbenzene                           | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Xylenes, Total                         | ND      | 0.00193  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Naphthalene                            | ND      | 0.00193  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1-Methylnaphthalene                    | ND      | 0.00386  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 2-Methylnaphthalene                    | ND      | 0.00386  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Acetone                                | 0.0988  | 0.00966  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Bromobenzene                           | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Bromodichloromethane                   | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Bromoform                              | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Bromomethane                           | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 2-Butanone                             | ND      | 0.00966  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Carbon tetrachloride                   | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Chlorobenzene                          | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Chloroethane                           | ND      | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-19 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:35:00 AM

**Lab ID:** 1210858-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Chloromethane                          | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 2-Chlorotoluene                        | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Carbon disulfide                       | ND     | 0.00966  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 4-Chlorotoluene                        | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| cis-1,2-DCE                            | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Dibromochloromethane                   | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Dibromomethane                         | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Dichlorodifluoromethane                | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1-Dichloroethane                     | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1-Dichloroethene                     | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2-Dichloropropane                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,3-Dichloropropane                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 2,2-Dichloropropane                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1-Dichloropropene                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Hexachlorobutadiene                    | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Isopropylbenzene                       | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 4-Isopropyltoluene                     | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Methylene chloride                     | ND     | 0.00290  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| n-Butylbenzene                         | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 2-Hexanone                             | ND     | 0.00966  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| n-Propylbenzene                        | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| sec-Butylbenzene                       | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Styrene                                | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00966  |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| tert-Butylbenzene                      | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| trans-1,2-DCE                          | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Trichloroethene (TCE)                  | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Trichlorofluoromethane                 | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-19 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 10:35:00 AM

**Lab ID:** 1210858-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Vinyl chloride                         | ND     | 0.000966 |      | mg/Kg | 1  | 10/18/2012 5:25:43 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.5   | 70-130   |      | %REC  | 1  | 10/18/2012 5:25:43 PM |
| Surr: 4-Bromofluorobenzene             | 100    | 70-130   |      | %REC  | 1  | 10/18/2012 5:25:43 PM |
| Surr: Dibromofluoromethane             | 103    | 70-130   |      | %REC  | 1  | 10/18/2012 5:25:43 PM |
| Surr: Toluene-d8                       | 94.1   | 70-130   |      | %REC  | 1  | 10/18/2012 5:25:43 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 11:44:48 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 52       |      | mg/Kg | 1   | 10/19/2012 11:44:48 AM |
| Surr: DNOP                                     | 96.8   | 77.6-140 |      | %REC  | 1   | 10/19/2012 11:44:48 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 3:25:48 AM  |
| Surr: BFB                                      | 89.2   | 84-116   |      | %REC  | 1   | 10/25/2012 3:25:48 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:51:59 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Barium                                         | 440    | 2.0      |      | mg/Kg | 20  | 10/25/2012 5:42:05 PM  |
| Beryllium                                      | 0.77   | 0.30     |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Chromium                                       | 9.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Cobalt                                         | 4.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 10/25/2012 5:44:46 PM  |
| Lead                                           | 2.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Manganese                                      | 450    | 2.0      |      | mg/Kg | 20  | 10/25/2012 5:42:05 PM  |
| Nickel                                         | 7.5    | 1.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 1:44:15 PM  |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| Zinc                                           | 17     | 5.0      |      | mg/Kg | 2   | 10/25/2012 5:39:12 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 9:33:26 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 9:33:26 PM |
| Surr: 2,4,6-Tribromophenol             | 77.7    | 21.3-145 |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| Surr: 2-Fluorobiphenyl                 | 77.7    | 20-131   |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| Surr: 2-Fluorophenol                   | 75.5    | 11.9-130 |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| Surr: 4-Terphenyl-d14                  | 74.2    | 25.1-149 |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| Surr: Nitrobenzene-d5                  | 89.9    | 25.6-137 |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| Surr: Phenol-d5                        | 82.2    | 20.3-132 |      | %REC  | 1  | 10/23/2012 9:33:26 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00183 | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Toluene                                | 0.00147 | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Ethylbenzene                           | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Xylenes, Total                         | ND      | 0.00208  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Naphthalene                            | ND      | 0.00208  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1-Methylnaphthalene                    | ND      | 0.00416  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 2-Methylnaphthalene                    | ND      | 0.00416  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Acetone                                | 0.0144  | 0.0104   |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Bromobenzene                           | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Bromodichloromethane                   | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Bromoform                              | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Bromomethane                           | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 2-Butanone                             | ND      | 0.0104   |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Carbon tetrachloride                   | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Chlorobenzene                          | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Chloroethane                           | ND      | 0.00104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Chloromethane                          | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 2-Chlorotoluene                        | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Carbon disulfide                       | ND     | 0.0104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 4-Chlorotoluene                        | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| cis-1,2-DCE                            | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Dibromochloromethane                   | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Dibromomethane                         | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Dichlorodifluoromethane                | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1-Dichloroethane                     | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1-Dichloroethene                     | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2-Dichloropropane                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,3-Dichloropropane                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 2,2-Dichloropropane                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1-Dichloropropene                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Hexachlorobutadiene                    | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Isopropylbenzene                       | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 4-Isopropyltoluene                     | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Methylene chloride                     | ND     | 0.00312 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| n-Butylbenzene                         | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 2-Hexanone                             | ND     | 0.0104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| n-Propylbenzene                        | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| sec-Butylbenzene                       | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Styrene                                | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0104  |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| tert-Butylbenzene                      | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| trans-1,2-DCE                          | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Trichloroethene (TCE)                  | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Trichlorofluoromethane                 | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Vinyl chloride                         | ND     | 0.00104 |      | mg/Kg | 1  | 10/18/2012 5:56:28 PM |
| Surr: 1,2-Dichloroethane-d4            | 86.1   | 70-130  |      | %REC  | 1  | 10/18/2012 5:56:28 PM |
| Surr: 4-Bromofluorobenzene             | 98.8   | 70-130  |      | %REC  | 1  | 10/18/2012 5:56:28 PM |
| Surr: Dibromofluoromethane             | 93.5   | 70-130  |      | %REC  | 1  | 10/18/2012 5:56:28 PM |
| Surr: Toluene-d8                       | 97.5   | 70-130  |      | %REC  | 1  | 10/18/2012 5:56:28 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 12:09:39 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/19/2012 12:09:39 PM |
| Surr: DNOP                                     | 95.2   | 77.6-140 |      | %REC  | 1   | 10/19/2012 12:09:39 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 3:54:32 AM  |
| Surr: BFB                                      | 89.3   | 84-116   |      | %REC  | 1   | 10/25/2012 3:54:32 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:53:47 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Barium                                         | 290    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:03:57 PM  |
| Beryllium                                      | 0.89   | 0.30     |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Chromium                                       | 11     | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Cobalt                                         | 4.5    | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Iron                                           | 17000  | 500      |      | mg/Kg | 500 | 10/31/2012 1:51:45 PM  |
| Lead                                           | 2.3    | 0.50     |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Manganese                                      | 470    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:03:57 PM  |
| Nickel                                         | 8.4    | 1.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 1:47:07 PM  |
| Vanadium                                       | 22     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| Zinc                                           | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:01:03 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/23/2012 11:01:44 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/23/2012 11:01:44 PM |
| Surr: 2,4,6-Tribromophenol             | 76.9    | 21.3-145 |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| Surr: 2-Fluorobiphenyl                 | 81.8    | 20-131   |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| Surr: 2-Fluorophenol                   | 74.0    | 11.9-130 |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| Surr: 4-Terphenyl-d14                  | 72.7    | 25.1-149 |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| Surr: Nitrobenzene-d5                  | 87.9    | 25.6-137 |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| Surr: Phenol-d5                        | 78.0    | 20.3-132 |      | %REC  | 1  | 10/23/2012 11:01:44 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00178 | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Toluene                                | 0.00111 | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Ethylbenzene                           | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Xylenes, Total                         | ND      | 0.00195  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Naphthalene                            | ND      | 0.00195  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00390  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00390  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Acetone                                | 0.0316  | 0.00974  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Bromobenzene                           | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Bromodichloromethane                   | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Bromoform                              | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Bromomethane                           | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| 2-Butanone                             | ND      | 0.00974  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Carbon tetrachloride                   | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Chlorobenzene                          | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |
| Chloroethane                           | ND      | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Chloromethane                          | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 2-Chlorotoluene                        | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Carbon disulfide                       | ND     | 0.00974  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 4-Chlorotoluene                        | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| cis-1,2-DCE                            | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Dibromochloromethane                   | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Dibromomethane                         | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Dichlorodifluoromethane                | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1-Dichloroethane                     | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1-Dichloroethene                     | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,2-Dichloropropane                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,3-Dichloropropane                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 2,2-Dichloropropane                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1-Dichloropropene                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Hexachlorobutadiene                    | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Isopropylbenzene                       | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 4-Isopropyltoluene                     | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Methylene chloride                     | ND     | 0.00292  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| n-Butylbenzene                         | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 2-Hexanone                             | ND     | 0.00974  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| n-Propylbenzene                        | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| sec-Butylbenzene                       | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Styrene                                | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00974  |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| tert-Butylbenzene                      | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| trans-1,2-DCE                          | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Trichloroethene (TCE)                  | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Trichlorofluoromethane                 | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-21 (0-0.5') DUP

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:05:00 AM

**Lab ID:** 1210858-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Vinyl chloride                         | ND     | 0.000974 |      | mg/Kg | 1  | 10/18/2012 6:27:13 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.9   | 70-130   |      | %REC  | 1  | 10/18/2012 6:27:13 PM |
| Surr: 4-Bromofluorobenzene             | 97.8   | 70-130   |      | %REC  | 1  | 10/18/2012 6:27:13 PM |
| Surr: Dibromofluoromethane             | 103    | 70-130   |      | %REC  | 1  | 10/18/2012 6:27:13 PM |
| Surr: Toluene-d8                       | 88.5   | 70-130   |      | %REC  | 1  | 10/18/2012 6:27:13 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:35:00 AM

**Lab ID:** 1210858-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 5:25:09 AM  |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/21/2012 5:25:09 AM  |
| Surr: DNOP                                     | 108    | 77.6-140 |      | %REC  | 1   | 10/21/2012 5:25:09 AM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 4:23:17 AM  |
| Surr: BFB                                      | 91.8   | 84-116   |      | %REC  | 1   | 10/25/2012 4:23:17 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | 0.034  | 0.033    |      | mg/kg | 1   | 10/23/2012 6:55:35 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Barium                                         | 590    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:17:18 PM  |
| Beryllium                                      | 0.89   | 0.30     |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Chromium                                       | 14     | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Cobalt                                         | 5.3    | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Iron                                           | 22000  | 500      |      | mg/Kg | 500 | 10/31/2012 1:57:31 PM  |
| Lead                                           | 3.5    | 0.50     |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Manganese                                      | 530    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:17:18 PM  |
| Nickel                                         | 8.6    | 1.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 1:54:36 PM  |
| Vanadium                                       | 27     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| Zinc                                           | 26     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:14:12 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/23/2012 11:31:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:35:00 AM

**Lab ID:** 1210858-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:35:00 AM

**Lab ID:** 1210858-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/23/2012 11:31:08 PM |
| Surr: 2,4,6-Tribromophenol             | 51.1    | 21.3-145 |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| Surr: 2-Fluorobiphenyl                 | 55.1    | 20-131   |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| Surr: 2-Fluorophenol                   | 49.3    | 11.9-130 |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| Surr: 4-Terphenyl-d14                  | 55.2    | 25.1-149 |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| Surr: Nitrobenzene-d5                  | 56.6    | 25.6-137 |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| Surr: Phenol-d5                        | 53.3    | 20.3-132 |      | %REC  | 1  | 10/23/2012 11:31:08 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00183 | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Toluene                                | 0.00156 | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Ethylbenzene                           | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Xylenes, Total                         | ND      | 0.00189  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Naphthalene                            | ND      | 0.00189  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00377  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00377  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Acetone                                | 0.0637  | 0.00943  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Bromobenzene                           | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Bromodichloromethane                   | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Bromoform                              | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Bromomethane                           | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| 2-Butanone                             | ND      | 0.00943  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Carbon tetrachloride                   | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Chlorobenzene                          | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |
| Chloroethane                           | ND      | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:35:00 AM

**Lab ID:** 1210858-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Chloromethane                          | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 2-Chlorotoluene                        | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Carbon disulfide                       | ND     | 0.00943  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 4-Chlorotoluene                        | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| cis-1,2-DCE                            | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Dibromochloromethane                   | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Dibromomethane                         | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Dichlorodifluoromethane                | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1-Dichloroethane                     | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1-Dichloroethene                     | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,2-Dichloropropane                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,3-Dichloropropane                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 2,2-Dichloropropane                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1-Dichloropropene                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Hexachlorobutadiene                    | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Isopropylbenzene                       | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 4-Isopropyltoluene                     | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Methylene chloride                     | ND     | 0.00283  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| n-Butylbenzene                         | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 2-Hexanone                             | ND     | 0.00943  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| n-Propylbenzene                        | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| sec-Butylbenzene                       | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Styrene                                | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00943  |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| tert-Butylbenzene                      | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| trans-1,2-DCE                          | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Trichloroethene (TCE)                  | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Trichlorofluoromethane                 | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:35:00 AM

**Lab ID:** 1210858-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Vinyl chloride                         | ND     | 0.000943 |      | mg/Kg | 1  | 10/18/2012 6:58:06 PM |
| Surr: 1,2-Dichloroethane-d4            | 91.0   | 70-130   |      | %REC  | 1  | 10/18/2012 6:58:06 PM |
| Surr: 4-Bromofluorobenzene             | 111    | 70-130   |      | %REC  | 1  | 10/18/2012 6:58:06 PM |
| Surr: Dibromofluoromethane             | 101    | 70-130   |      | %REC  | 1  | 10/18/2012 6:58:06 PM |
| Surr: Toluene-d8                       | 92.2   | 70-130   |      | %REC  | 1  | 10/18/2012 6:58:06 PM |

### Qualifiers:

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P Sample pH greater than 2  
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B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:45:00 AM

**Lab ID:** 1210858-007

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/19/2012 12:34:28 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 10/19/2012 12:34:28 PM |
| Surr: DNOP                                     | 95.5   | 77.6-140 |      | %REC  | 1   | 10/19/2012 12:34:28 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/25/2012 4:51:59 AM  |
| Surr: BFB                                      | 88.6   | 84-116   |      | %REC  | 1   | 10/25/2012 4:51:59 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 6:57:23 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Barium                                         | 500    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:28:40 PM  |
| Beryllium                                      | 0.69   | 0.30     |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Chromium                                       | 9.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Cobalt                                         | 3.8    | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 10/31/2012 2:03:13 PM  |
| Lead                                           | 2.4    | 0.50     |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Manganese                                      | 330    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:28:40 PM  |
| Nickel                                         | 6.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:00:20 PM  |
| Vanadium                                       | 18     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| Zinc                                           | 15     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:25:49 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 12:00:35 AM |

**Qualifiers:**

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:45:00 AM

**Lab ID:** 1210858-007

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC           |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:45:00 AM

**Lab ID:** 1210858-007

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 12:00:35 AM |
| Surr: 2,4,6-Tribromophenol             | 64.0    | 21.3-145 |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| Surr: 2-Fluorobiphenyl                 | 60.0    | 20-131   |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| Surr: 2-Fluorophenol                   | 53.3    | 11.9-130 |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| Surr: 4-Terphenyl-d14                  | 60.2    | 25.1-149 |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| Surr: Nitrobenzene-d5                  | 62.0    | 25.6-137 |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| Surr: Phenol-d5                        | 58.3    | 20.3-132 |      | %REC  | 1  | 10/24/2012 12:00:35 AM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00192 | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Toluene                                | 0.00129 | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Ethylbenzene                           | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Xylenes, Total                         | ND      | 0.00176  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Naphthalene                            | ND      | 0.00176  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 1-Methylnaphthalene                    | ND      | 0.00351  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 2-Methylnaphthalene                    | ND      | 0.00351  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Acetone                                | 0.0242  | 0.00878  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Bromobenzene                           | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Bromodichloromethane                   | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Bromoform                              | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Bromomethane                           | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| 2-Butanone                             | ND      | 0.00878  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Carbon tetrachloride                   | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Chlorobenzene                          | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |
| Chloroethane                           | ND      | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM  |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:45:00 AM

**Lab ID:** 1210858-007

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Chloromethane                          | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 2-Chlorotoluene                        | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Carbon disulfide                       | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 4-Chlorotoluene                        | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| cis-1,2-DCE                            | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Dibromochloromethane                   | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Dibromomethane                         | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Dichlorodifluoromethane                | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1-Dichloroethane                     | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1-Dichloroethene                     | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,2-Dichloropropane                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,3-Dichloropropane                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 2,2-Dichloropropane                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1-Dichloropropene                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Hexachlorobutadiene                    | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Isopropylbenzene                       | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 4-Isopropyltoluene                     | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Methylene chloride                     | ND     | 0.00264  |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| n-Butylbenzene                         | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 2-Hexanone                             | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| n-Propylbenzene                        | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| sec-Butylbenzene                       | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Styrene                                | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| tert-Butylbenzene                      | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| trans-1,2-DCE                          | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Trichloroethene (TCE)                  | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Trichlorofluoromethane                 | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-22 (1.5-2')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 11:45:00 AM

**Lab ID:** 1210858-007

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Vinyl chloride                         | ND     | 0.000878 |      | mg/Kg | 1  | 10/18/2012 7:28:54 PM |
| Surr: 1,2-Dichloroethane-d4            | 88.2   | 70-130   |      | %REC  | 1  | 10/18/2012 7:28:54 PM |
| Surr: 4-Bromofluorobenzene             | 96.2   | 70-130   |      | %REC  | 1  | 10/18/2012 7:28:54 PM |
| Surr: Dibromofluoromethane             | 94.2   | 70-130   |      | %REC  | 1  | 10/18/2012 7:28:54 PM |
| Surr: Toluene-d8                       | 92.7   | 70-130   |      | %REC  | 1  | 10/18/2012 7:28:54 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** MeOH Blank

**Project:** SWMU NO.1

**Collection Date:**

**Lab ID:** 1210858-008

**Matrix:** MEOH (SOIL)

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                | Result | RL     | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |        |      |       |    | Analyst: NSB          |
| Gasoline Range Organics (GRO)           | ND     | 5.0    |      | mg/Kg | 1  | 10/26/2012 2:33:06 AM |
| Surr: BFB                               | 98.8   | 84-116 |      | %REC  | 1  | 10/26/2012 2:33:06 AM |
| <b>EPA METHOD 8260B: VOLATILES</b>      |        |        |      |       |    | Analyst: RAA          |
| Benzene                                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Toluene                                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Ethylbenzene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Methyl tert-butyl ether (MTBE)          | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2,4-Trimethylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,3,5-Trimethylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2-Dichloroethane (EDC)                | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2-Dibromoethane (EDB)                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Naphthalene                             | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1-Methylnaphthalene                     | ND     | 0.20   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 2-Methylnaphthalene                     | ND     | 0.20   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Acetone                                 | ND     | 0.75   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Bromobenzene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Bromodichloromethane                    | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Bromoform                               | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Bromomethane                            | ND     | 0.15   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 2-Butanone                              | ND     | 0.50   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Carbon disulfide                        | ND     | 0.50   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Carbon tetrachloride                    | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Chlorobenzene                           | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Chloroethane                            | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Chloroform                              | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Chloromethane                           | ND     | 0.15   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 2-Chlorotoluene                         | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 4-Chlorotoluene                         | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| cis-1,2-DCE                             | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| cis-1,3-Dichloropropene                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2-Dibromo-3-chloropropane             | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Dibromochloromethane                    | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Dibromomethane                          | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,3-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,4-Dichlorobenzene                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Dichlorodifluoromethane                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1-Dichloroethane                      | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1-Dichloroethene                      | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2-Dichloropropane                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,3-Dichloropropane                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210858

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** MeOH Blank

**Project:** SWMU NO.1

**Collection Date:**

**Lab ID:** 1210858-008

**Matrix:** MEOH (SOIL)

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed         |
|------------------------------------|--------|--------|------|-------|----|-----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: RAA          |
| 2,2-Dichloropropane                | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1-Dichloropropene                | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Hexachlorobutadiene                | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 2-Hexanone                         | ND     | 0.50   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Isopropylbenzene                   | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 4-Isopropyltoluene                 | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 4-Methyl-2-pentanone               | ND     | 0.50   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Methylene chloride                 | ND     | 0.15   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| n-Butylbenzene                     | ND     | 0.15   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| n-Propylbenzene                    | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| sec-Butylbenzene                   | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Styrene                            | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| tert-Butylbenzene                  | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Tetrachloroethene (PCE)            | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| trans-1,2-DCE                      | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| trans-1,3-Dichloropropene          | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2,3-Trichlorobenzene             | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2,4-Trichlorobenzene             | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1,1-Trichloroethane              | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,1,2-Trichloroethane              | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Trichloroethene (TCE)              | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Trichlorofluoromethane             | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| 1,2,3-Trichloropropane             | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Vinyl chloride                     | ND     | 0.050  |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Xylenes, Total                     | ND     | 0.10   |      | mg/Kg | 1  | 10/24/2012 7:30:31 PM |
| Surr: 1,2-Dichloroethane-d4        | 92.0   | 70-130 |      | %REC  | 1  | 10/24/2012 7:30:31 PM |
| Surr: 4-Bromofluorobenzene         | 94.6   | 70-130 |      | %REC  | 1  | 10/24/2012 7:30:31 PM |
| Surr: Dibromofluoromethane         | 91.8   | 70-130 |      | %REC  | 1  | 10/24/2012 7:30:31 PM |
| Surr: Toluene-d8                   | 96.2   | 70-130 |      | %REC  | 1  | 10/24/2012 7:30:31 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019047  
**Project Name:** 1210858

## Analytical Results Report

|                         |                                     |                      |            |                           |                    |
|-------------------------|-------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019047-001                       | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210858-001D / SWMU 1-18<br>(0-0.5) | <b>Sampling Time</b> | 10:00 AM   |                           |                    |
| <b>Matrix</b>           | Soil                                |                      |            |                           |                    |
| <b>Comments</b>         |                                     |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.261 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 4.7    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

|                         |                                     |                      |            |                           |                    |
|-------------------------|-------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019047-002                       | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210858-002D / SWMU 1-18<br>(1.5-2) | <b>Sampling Time</b> | 10:10 AM   |                           |                    |
| <b>Matrix</b>           | Soil                                |                      |            |                           |                    |
| <b>Comments</b>         |                                     |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.282 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 11.7   | Percent |       | 10/30/2012    | TGT     | %moisture |           |

|                         |                                     |                      |            |                           |                    |
|-------------------------|-------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019047-003                       | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210858-003D / SWMU 1-19<br>(0-0.5) | <b>Sampling Time</b> | 10:35 AM   |                           |                    |
| <b>Matrix</b>           | Soil                                |                      |            |                           |                    |
| <b>Comments</b>         |                                     |                      |            |                           |                    |

| Parameter | Result | Units   | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.26 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 4.2    | Percent |      | 10/30/2012    | TGT     | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Monday, November 05, 2012

# Anatek Labs, Inc.

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019047  
**Project Name:** 1210858

## Analytical Results Report

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| Sample Number    | 121019047-004                    | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |
| Client Sample ID | 1210858-004D / SWMU 1-21 (0-0.5) | Sampling Time | 11:05 AM   |                    |                    |
| Matrix           | Soil                             |               |            |                    |                    |
| Comments         |                                  |               |            |                    |                    |
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| Sample Number    | 121019047-005                        | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |
| Client Sample ID | 1210858-005D / SWMU 1-21 (0-0.5) DUP | Sampling Time | 11:05 AM   |                    |                    |
| Matrix           | Soil                                 |               |            |                    |                    |
| Comments         |                                      |               |            |                    |                    |
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| Sample Number    | 121019047-006                    | Sampling Date | 10/16/2012 | Date/Time Received | 10/19/2012 1:14 PM |           |           |
| Client Sample ID | 1210858-006D / SWMU 1-22 (0-0.5) | Sampling Time | 11:35 AM   |                    |                    |           |           |
| Matrix           | Soil                             |               |            |                    |                    |           |           |
| Comments         |                                  |               |            |                    |                    |           |           |
|                  |                                  |               |            |                    |                    |           |           |
| Parameter        | Result                           | Units         | PQL        | Analysis Date      | Analyst            | Method    | Qualifier |
| Cyanide          | ND                               | mg/Kg         | 0.262      | 10/30/2012         | CRW                | EPA 335.4 |           |
| %moisture        | 4.9                              | Percent       |            | 10/30/2012         | TGT                | %moisture |           |

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

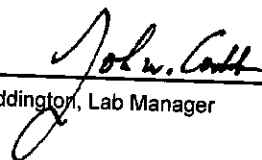
**Batch #:** 121019047  
**Project Name:** 1210858

## Analytical Results Report

|                         |                                     |                      |            |                           |                    |
|-------------------------|-------------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019047-007                       | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210858-007D / SWMU 1-22<br>(1.5-2) | <b>Sampling Time</b> | 11:45 AM   |                           |                    |
| <b>Matrix</b>           | Soil                                |                      |            |                           |                    |
| <b>Comments</b>         |                                     |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.273 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 10     | Percent |       | 10/30/2012    | TGT     | %moisture |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87883; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Monday, November 05, 2012

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |                           |           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4397    | SampType: MBLK            |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        | Batch ID: 4397            |           |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 | Analysis Date: 10/18/2012 |           |             | SeqNo: 182283                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10                        |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50                        |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 10         |                           | 10.00     |             | 103                                               | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4397   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4397            |             | RunNo: 6325                                       |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182284                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 56         | 10  | 50.00                     | 0           | 111                                               | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.3        |     | 5.000                     |             | 86.9                                              | 77.6     | 140          |      |          |      |

|            |            |                |            |             |           |                                         |           |      |          |      |
|------------|------------|----------------|------------|-------------|-----------|-----------------------------------------|-----------|------|----------|------|
| Sample ID  | MB-4404    | SampType:      | MBLK       |             | TestCode: | EPA Method 8015B: Diesel Range Organics |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4404       |             | RunNo:    | 6356                                    |           |      |          |      |
| Prep Date: | 10/18/2012 | Analysis Date: | 10/19/2012 |             | SeqNo:    | 182984                                  | Units:    | %REC |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC      | LowLimit                                | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 9.6        |                | 10.00      |             | 95.6      | 77.6                                    | 140       |      |          |      |

|            |            |     |                           |             |                                                   |          |             |      |          |      |
|------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | LCS-4404   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | LCSS       |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182985                                     |          | Units: %REC |      |          |      |
| Analyte    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.5        |     | 5.000                     |             | 90.3                                              | 77.6     | 140         |      |          |      |

|            |                |     |                           |             |                                                   |          |             |      |          |      |
|------------|----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210819-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | BatchQC        |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012     |     | Analysis Date: 10/19/2012 |             | SeqNo: 183001                                     |          | Units: %REC |      |          |      |
| Analyte    | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.7            |     | 5.899                     |             | 79.7                                              | 77.6     | 140         |      |          |      |

|            |                 |     |                           |             |                                                   |          |             |      |          |      |
|------------|-----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|-------------|------|----------|------|
| Sample ID  | 1210819-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |             |      |          |      |
| Client ID: | BatchQC         |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |             |      |          |      |
| Prep Date: | 10/18/2012      |     | Analysis Date: 10/19/2012 |             | SeqNo: 183002                                     |          | Units: %REC |      |          |      |
| Analyte    | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit   | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.9             |     | 6.148                     |             | 79.2                                              | 77.6     | 140         | 0    | 0        |      |

### Qualifiers:

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J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |        |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|--------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 5ML RB |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS    |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |        |     | Analysis Date: 10/24/2012 |             | SeqNo: 186219                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND     | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 920    |     | 1000                      |             | 91.7                                       | 84       | 116          |      |          |      |

|                               |               |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|---------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 2.5UG GRO LCS |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS          |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |               |     | Analysis Date: 10/24/2012 |             | SeqNo: 186225                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result        | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24            | 5.0 | 25.00                     | 0           | 94.5                                       | 74       | 117          |      |          |      |
| Surr: BFB                     | 930           |     | 1000                      |             | 93.1                                       | 84       | 116          |      |          |      |

|                               |                 |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210811-011BMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: R6457           |             | RunNo: 6457                                |          |              |      |          |      |
| Prep Date:                    |                 |     | Analysis Date: 10/24/2012 |             | SeqNo: 186249                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 17              | 5.0 | 15.90                     | 0           | 110                                        | 70       | 130          | 12.7 | 22.1     |      |
| Surr: BFB                     | 590             |     | 636.0                     |             | 93.2                                       | 84       | 116          | 0    | 0        |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4474    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012 |     | Analysis Date: 10/25/2012 |             | SeqNo: 187625                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 950        |     | 1000                      |             | 95.0                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4474   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012 |     | Analysis Date: 10/25/2012 |             | SeqNo: 187626                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 25         | 5.0 | 25.00                     | 0           | 102                                        | 74       | 117          |      |          |      |
| Surr: BFB                     | 1000       |     | 1000                      |             | 100                                        | 84       | 116          |      |          |      |

|                               |                |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210A08-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012     |     | Analysis Date: 10/25/2012 |             | SeqNo: 187638                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 33             | 4.9 | 24.34                     | 11.22       | 90.8                                       | 70       | 130          |      |          |      |
| Surr: BFB                     | 1100           |     | 973.7                     |             | 117                                        | 84       | 116          |      |          | S    |

### Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |                 |                |            |             |                                  |          |           |       |          |      |
|-------------------------------|-----------------|----------------|------------|-------------|----------------------------------|----------|-----------|-------|----------|------|
| Sample ID                     | 1210A08-001AMSD | SampType:      | MSD        | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |       |          |      |
| Client ID:                    | BatchQC         | Batch ID:      | 4474       | RunNo:      | 6487                             |          |           |       |          |      |
| Prep Date:                    | 10/23/2012      | Analysis Date: | 10/25/2012 | SeqNo:      | 187639                           | Units:   | mg/Kg     |       |          |      |
| Analyte                       | Result          | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 33              | 4.9            | 24.39      | 11.22       | 89.9                             | 70       | 130       | 0.479 | 22.1     |      |
| Surr: BFB                     | 1100            |                | 975.6      |             | 115                              | 84       | 116       | 0     | 0        |      |

|                               |                |                |            |             |                                  |          |           |      |          |      |
|-------------------------------|----------------|----------------|------------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | 1210811-011BMS | SampType:      | MS         | TestCode:   | EPA Method 8015B: Gasoline Range |          |           |      |          |      |
| Client ID:                    | BatchQC        | Batch ID:      | R6457      | RunNo:      | 6487                             |          |           |      |          |      |
| Prep Date:                    |                | Analysis Date: | 10/25/2012 | SeqNo:      | 187647                           | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result         | PQL            | SPK value  | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 15             | 5.0            | 15.91      | 0           | 96.6                             | 70       | 130       |      |          |      |
| Surr: BFB                     | 650            |                | 636.4      |             | 102                              | 84       | 116       |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |     |                |                   |      |           |                                    |      |                    |      |
|-----------------------------|-------------------|-----|----------------|-------------------|------|-----------|------------------------------------|------|--------------------|------|
| Sample ID                   | <b>mb-4362</b>    |     | SampType:      | <b>MBLK</b>       |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |      |                    |      |
| Client ID:                  | <b>PBS</b>        |     | Batch ID:      | <b>4362</b>       |      | RunNo:    | <b>6485</b>                        |      |                    |      |
| Prep Date:                  | <b>10/17/2012</b> |     | Analysis Date: | <b>10/24/2012</b> |      | SeqNo:    | <b>186696</b>                      |      | Units: <b>%REC</b> |      |
| Analyte                     | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                          | %RPD | RPDLimit           | Qual |
| Surr: 1,2-Dichloroethane-d4 | 0.46              |     | 0.5000         |                   | 92.3 | 70        | 130                                |      |                    |      |
| Surr: 4-Bromofluorobenzene  | 0.46              |     | 0.5000         |                   | 92.1 | 70        | 130                                |      |                    |      |
| Surr: Dibromofluoromethane  | 0.46              |     | 0.5000         |                   | 92.5 | 70        | 130                                |      |                    |      |
| Surr: Toluene-d8            | 0.49              |     | 0.5000         |                   | 98.5 | 70        | 130                                |      |                    |      |

|                             |                   |     |                |                   |      |           |                                    |      |                    |      |
|-----------------------------|-------------------|-----|----------------|-------------------|------|-----------|------------------------------------|------|--------------------|------|
| Sample ID                   | <b>lcs-4362</b>   |     | SampType:      | <b>LCS</b>        |      | TestCode: | <b>EPA Method 8260B: VOLATILES</b> |      |                    |      |
| Client ID:                  | <b>LCSS</b>       |     | Batch ID:      | <b>4362</b>       |      | RunNo:    | <b>6485</b>                        |      |                    |      |
| Prep Date:                  | <b>10/17/2012</b> |     | Analysis Date: | <b>10/24/2012</b> |      | SeqNo:    | <b>186792</b>                      |      | Units: <b>%REC</b> |      |
| Analyte                     | Result            | PQL | SPK value      | SPK Ref Val       | %REC | LowLimit  | HighLimit                          | %RPD | RPDLimit           | Qual |
| Surr: 1,2-Dichloroethane-d4 | 0.46              |     | 0.5000         |                   | 92.4 | 70        | 130                                |      |                    |      |
| Surr: 4-Bromofluorobenzene  | 0.46              |     | 0.5000         |                   | 92.7 | 70        | 130                                |      |                    |      |
| Surr: Dibromofluoromethane  | 0.47              |     | 0.5000         |                   | 93.1 | 70        | 130                                |      |                    |      |
| Surr: Toluene-d8            | 0.47              |     | 0.5000         |                   | 94.6 | 70        | 130                                |      |                    |      |

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ND Not Detected at the Reporting Limit  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.1       |         | 50.00                     |             | 92.1                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 44.8       |         | 50.00                     |             | 89.6                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 53.0       |         | 50.00                     |             | 106                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 42.4       |         | 50.00                     |             | 84.8                                      | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4393   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |      | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 8.87       | 1.00 | 10.00                     | 0           | 88.7                                      | 60       | 140          |      |          |      |
| Toluene                     | 8.50       | 1.00 | 10.00                     | 0           | 85.0                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 9.38       | 1.00 | 10.00                     | 0           | 93.8                                      | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 11.0       | 1.00 | 10.00                     | 0           | 110                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 7.70       | 1.00 | 10.00                     | 0           | 77.0                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 44.9       |      | 50.00                     |             | 89.8                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 40.9       |      | 50.00                     |             | 81.7                                      | 70       | 130          |      |          |      |

### Qualifiers:

|   |                                            |    |                                                    |
|---|--------------------------------------------|----|----------------------------------------------------|
| * | Value exceeds Maximum Contaminant Level.   | B  | Analyte detected in the associated Method Blank    |
| E | Value above quantitation range             | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit                |
| P | Sample pH greater than 2                   | R  | RPD outside accepted recovery limits               |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4393   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 50.4       |     | 50.00                     |             | 101                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 41.1       |     | 50.00                     |             | 82.2                                      | 70       | 130          |      |          |      |

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4419    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4419            |             | RunNo: 6365                               |          |              |      |          |      |
| Prep Date:                     | 10/19/2012 |         | Analysis Date: 10/19/2012 |             | SeqNo: 183060                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4419    |         | SampType: MBLK            |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4419            |             |      | RunNo: 6365                               |           |              |          |      |
| Prep Date:                  | 10/19/2012 |         | Analysis Date: 10/19/2012 |             |      | SeqNo: 183060                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| 1,4-Dichlorobenzene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Dichlorodifluoromethane     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethane          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloroethene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,3-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2,2-Dichloropropane         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1-Dichloropropene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Methylene chloride          | 0.00320    | 0.00300 |                           |             |      |                                           |           |              |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |      |                                           |           |              |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |      |                                           |           |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 43.7       |         | 50.00                     |             | 87.4 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 43.0       |         | 50.00                     |             | 85.9 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 50.0       |         | 50.00                     |             | 100  | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 51.0       |         | 50.00                     |             | 102  | 70                                        | 130       |              |          |      |

### Qualifiers:

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | Ics-4419   |      | SampType: LCS             |             |      | TestCode: Method 8260B/5035LOW: VOLATILES |           |              |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4419            |             |      | RunNo: 6365                               |           |              |          |      |
| Prep Date:                  | 10/19/2012 |      | Analysis Date: 10/19/2012 |             |      | SeqNo: 183062                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Benzene                     | 11.7       | 1.00 | 12.50                     | 0           | 93.9 | 60                                        | 140       |              |          |      |
| Toluene                     | 10.2       | 1.00 | 12.50                     | 0           | 82.0 | 60                                        | 140       |              |          |      |
| Chlorobenzene               | 11.9       | 1.00 | 12.50                     | 0           | 94.9 | 60                                        | 140       |              |          |      |
| 1,1-Dichloroethene          | 14.5       | 1.00 | 12.50                     | 0           | 116  | 60                                        | 140       |              |          |      |
| Trichloroethene (TCE)       | 9.39       | 1.00 | 12.50                     | 0           | 75.1 | 60                                        | 140       |              |          |      |
| Surr: 1,2-Dichloroethane-d4 | 47.4       |      | 50.00                     |             | 94.9 | 70                                        | 130       |              |          |      |
| Surr: 4-Bromofluorobenzene  | 41.6       |      | 50.00                     |             | 83.2 | 70                                        | 130       |              |          |      |
| Surr: Dibromofluoromethane  | 46.8       |      | 50.00                     |             | 93.6 | 70                                        | 130       |              |          |      |
| Surr: Toluene-d8            | 46.1       |      | 50.00                     |             | 92.3 | 70                                        | 130       |              |          |      |

### Qualifiers:

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |                           |           |             |                                           |          |              |      |          |      |
|----------------------------|------------|---------------------------|-----------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4422   | SampType: LCS             |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       | Batch ID: 4422            |           |             | RunNo: 6445                               |          |              |      |          |      |
| Prep Date:                 | 10/19/2012 | Analysis Date: 10/23/2012 |           |             | SeqNo: 185414                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL                       | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2        | 0.20                      | 1.670     | 0           | 74.7                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6        | 0.50                      | 3.330     | 0           | 76.9                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.5        | 0.20                      | 3.330     | 0           | 75.3                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20                      | 1.670     | 0           | 78.0                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.3        | 0.50                      | 1.670     | 0           | 79.3                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20                      | 1.670     | 0           | 83.1                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.4        | 0.25                      | 3.330     | 0           | 73.5                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40                      | 3.330     | 0           | 61.6                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.4        | 0.20                      | 3.330     | 0           | 72.5                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.3        | 0.20                      | 1.670     | 0           | 77.3                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.5        | 0.20                      | 1.670     | 0           | 91.6                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.4        |                           | 3.330     |             | 103                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6        |                           | 1.670     |             | 95.5                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.8        |                           | 3.330     |             | 83.7                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3        |                           | 1.670     |             | 79.6                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7        |                           | 1.670     |             | 99.9                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0        |                           | 3.330     |             | 89.0                                      | 20.3     | 132          |      |          |      |

|                             |            |      |                           |             |      |                                           |           |              |          |      |
|-----------------------------|------------|------|---------------------------|-------------|------|-------------------------------------------|-----------|--------------|----------|------|
| Sample ID                   | mb-4422    |      | SampType: MBLK            |             |      | TestCode: EPA Method 8270C: Semivolatiles |           |              |          |      |
| Client ID:                  | PBS        |      | Batch ID: 4422            |             |      | RunNo: 6445                               |           |              |          |      |
| Prep Date:                  | 10/19/2012 |      | Analysis Date: 10/23/2012 |             |      | SeqNo: 185416                             |           | Units: mg/Kg |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC | LowLimit                                  | HighLimit | %RPD         | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Acenaphthylene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Aniline                     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Anthracene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Azobenzene                  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benz(a)anthracene           | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(a)pyrene              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Benzoic acid                | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| Benzyl alcohol              | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50 |                           |             |      |                                           |           |              |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |
| Butyl benzyl phthalate      | ND         | 0.20 |                           |             |      |                                           |           |              |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |                   |      |                                  |             |                                                  |          |                     |      |          |      |
|-----------------------------|-------------------|------|----------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                   | <b>mb-4422</b>    |      | SampType: <b>MBLK</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                  | <b>PBS</b>        |      | Batch ID: <b>4422</b>            |             | RunNo: <b>6445</b>                               |          |                     |      |          |      |
| Prep Date:                  | <b>10/19/2012</b> |      | Analysis Date: <b>10/23/2012</b> |             | SeqNo: <b>185416</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                     | Result            | PQL  | SPK value                        | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Carbazole                   | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloro-3-methylphenol     | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chloroaniline             | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chloronaphthalene         | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Chlorophenol              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Chlorophenyl phenyl ether | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Chrysene                    | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-butyl phthalate        | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Di-n-octyl phthalate        | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenz(a,h)anthracene       | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dibenzofuran                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,2-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,3-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 1,4-Dichlorobenzene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 3,3'-Dichlorobenzidine      | ND                | 0.25 |                                  |             |                                                  |          |                     |      |          |      |
| Diethyl phthalate           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Dimethyl phthalate          | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dichlorophenol          | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dimethylphenol          | ND                | 0.30 |                                  |             |                                                  |          |                     |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrophenol           | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |
| 2,4-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 2,6-Dinitrotoluene          | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| Fluoranthene                | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Fluorene                    | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Hexachlorobenzene           | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Hexachlorobutadiene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Hexachlorocyclopentadiene   | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Hexachloroethane            | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Indeno(1,2,3-cd)pyrene      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Isophorone                  | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 1-Methylnaphthalene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Methylnaphthalene         | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Methylphenol              | ND                | 0.50 |                                  |             |                                                  |          |                     |      |          |      |
| 3+4-Methylphenol            | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| N-Nitrosodi-n-propylamine   | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| N-Nitrosodiphenylamine      | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| Naphthalene                 | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 2-Nitroaniline              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 3-Nitroaniline              | ND                | 0.20 |                                  |             |                                                  |          |                     |      |          |      |
| 4-Nitroaniline              | ND                | 0.40 |                                  |             |                                                  |          |                     |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                                  |             |      |                                                  |                     |      |          |      |
|----------------------------|-------------------|------|----------------------------------|-------------|------|--------------------------------------------------|---------------------|------|----------|------|
| Sample ID                  | <b>mb-4422</b>    |      | SampType: <b>MBLK</b>            |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |                     |      |          |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |                     |      |          |      |
| Prep Date:                 | <b>10/19/2012</b> |      | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185416</b>                             | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result            | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit           | %RPD | RPDLimit | Qual |
| Nitrobenzene               | ND                | 0.50 |                                  |             |      |                                                  |                     |      |          |      |
| 2-Nitrophenol              | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| 4-Nitrophenol              | ND                | 0.25 |                                  |             |      |                                                  |                     |      |          |      |
| Pentachlorophenol          | ND                | 0.40 |                                  |             |      |                                                  |                     |      |          |      |
| Phenanthrene               | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| Phenol                     | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| Pyrene                     | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| Pyridine                   | ND                | 0.50 |                                  |             |      |                                                  |                     |      |          |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |                     |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.9               |      | 3.330                            |             | 117  | 21.3                                             | 145                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6               |      | 1.670                            |             | 98.4 | 20                                               | 131                 |      |          |      |
| Surr: 2-Fluorophenol       | 3.1               |      | 3.330                            |             | 91.6 | 11.9                                             | 130                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5               |      | 1.670                            |             | 91.7 | 25.1                                             | 149                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.8               |      | 1.670                            |             | 109  | 25.6                                             | 137                 |      |          |      |
| Surr: Phenol-d5            | 3.2               |      | 3.330                            |             | 96.3 | 20.3                                             | 132                 |      |          |      |

|                            |                           |      |                                  |             |      |                                                  |                     |      |          |      |
|----------------------------|---------------------------|------|----------------------------------|-------------|------|--------------------------------------------------|---------------------|------|----------|------|
| Sample ID                  | <b>1210858-004Cms</b>     |      | SampType: <b>MS</b>              |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |                     |      |          |      |
| Client ID:                 | <b>SWMU 1-21 (0-0.5')</b> |      | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |                     |      |          |      |
| Prep Date:                 | <b>10/19/2012</b>         |      | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185433</b>                             | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result                    | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit           | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2                       | 0.20 | 1.659                            | 0           | 69.3 | 25.6                                             | 142                 |      |          |      |
| 4-Chloro-3-methylphenol    | 2.2                       | 0.50 | 3.309                            | 0           | 67.6 | 63.7                                             | 100                 |      |          |      |
| 2-Chlorophenol             | 2.0                       | 0.20 | 3.309                            | 0           | 61.7 | 22.2                                             | 126                 |      |          |      |
| 1,4-Dichlorobenzene        | 1.1                       | 0.20 | 1.659                            | 0           | 63.6 | 12.4                                             | 115                 |      |          |      |
| 2,4-Dinitrotoluene         | 1.2                       | 0.50 | 1.659                            | 0           | 74.6 | 14.9                                             | 142                 |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.1                       | 0.20 | 1.659                            | 0           | 65.9 | 13.9                                             | 136                 |      |          |      |
| 4-Nitrophenol              | 2.2                       | 0.25 | 3.309                            | 0.09121     | 63.6 | 36.7                                             | 130                 |      |          |      |
| Pentachlorophenol          | 1.9                       | 0.40 | 3.309                            | 0           | 56.5 | 15.8                                             | 113                 |      |          |      |
| Phenol                     | 2.1                       | 0.20 | 3.309                            | 0           | 63.9 | 25.1                                             | 124                 |      |          |      |
| Pyrene                     | 1.1                       | 0.20 | 1.659                            | 0           | 68.6 | 35.8                                             | 124                 |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.3                       | 0.20 | 1.659                            | 0           | 78.0 | 30                                               | 113                 |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0                       |      | 3.309                            |             | 90.3 | 21.3                                             | 145                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5                       |      | 1.659                            |             | 90.0 | 20                                               | 131                 |      |          |      |
| Surr: 2-Fluorophenol       | 2.5                       |      | 3.309                            |             | 74.2 | 11.9                                             | 130                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3                       |      | 1.659                            |             | 80.0 | 25.1                                             | 149                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7                       |      | 1.659                            |             | 101  | 25.6                                             | 137                 |      |          |      |
| Surr: Phenol-d5            | 2.8                       |      | 3.309                            |             | 84.0 | 20.3                                             | 132                 |      |          |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                    |                |            |             |                                 |          |           |      |          |      |
|----------------------------|--------------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                  | 1210858-004Cmsd    | SampType:      | MSD        | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                 | SWMU 1-21 (0-0.5') | Batch ID:      | 4422       | RunNo:      | 6445                            |          |           |      |          |      |
| Prep Date:                 | 10/19/2012         | Analysis Date: | 10/23/2012 | SeqNo:      | 185434                          | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result             | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2                | 0.20           | 1.681      | 0           | 71.3                            | 25.6     | 142       | 4.05 | 22       |      |
| 4-Chloro-3-methylphenol    | 2.3                | 0.50           | 3.351      | 0           | 69.5                            | 63.7     | 100       | 4.10 | 27.3     |      |
| 2-Chlorophenol             | 2.3                | 0.20           | 3.351      | 0           | 68.2                            | 22.2     | 126       | 11.4 | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1                | 0.20           | 1.681      | 0           | 63.4                            | 12.4     | 115       | 1.02 | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3                | 0.50           | 1.681      | 0           | 77.0                            | 14.9     | 142       | 4.43 | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3                | 0.20           | 1.681      | 0           | 75.9                            | 13.9     | 136       | 15.3 | 22.6     |      |
| 4-Nitrophenol              | 2.3                | 0.25           | 3.351      | 0.09121     | 64.9                            | 36.7     | 130       | 3.21 | 20       |      |
| Pentachlorophenol          | 2.0                | 0.40           | 3.351      | 0           | 59.9                            | 15.8     | 113       | 7.18 | 27.1     |      |
| Phenol                     | 2.2                | 0.20           | 3.351      | 0           | 66.5                            | 25.1     | 124       | 5.18 | 32.2     |      |
| Pyrene                     | 1.2                | 0.20           | 1.681      | 0           | 70.8                            | 35.8     | 124       | 4.36 | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4                | 0.20           | 1.681      | 0           | 80.5                            | 30       | 113       | 4.34 | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 3.1                |                | 3.351      |             | 93.6                            | 21.3     | 145       | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5                |                | 1.681      |             | 91.0                            | 20       | 131       | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 2.5                |                | 3.351      |             | 75.3                            | 11.9     | 130       | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.4                |                | 1.681      |             | 81.4                            | 25.1     | 149       | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 1.6                |                | 1.681      |             | 96.9                            | 25.6     | 137       | 0    | 0        |      |
| Surr: Phenol-d5            | 2.9                |                | 3.351      |             | 85.9                            | 20.3     | 132       | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4426    |       | SampType: MBLK            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS        |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185363                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND         | 0.033 |                           |             |                                    |          |              |      |          |      |

|            |            |       |                           |             |                                    |          |              |      |          |      |
|------------|------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4426   |       | SampType: LCS             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS       |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012 |       | Analysis Date: 10/23/2012 |             | SeqNo: 185364                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result     | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033 | 0.1667                    | 0           | 101                                | 80       | 120          |      |          |      |

|            |                |       |                           |             |                                    |          |              |      |          |      |
|------------|----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210859-002CMS |       | SampType: MS              |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC        |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012     |       | Analysis Date: 10/23/2012 |             | SeqNo: 185391                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result         | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.18           | 0.033 | 0.1654                    | 0.01134     | 102                                | 75       | 125          |      |          |      |

|            |                 |       |                           |             |                                    |          |              |      |          |      |
|------------|-----------------|-------|---------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210859-002CMSD |       | SampType: MSD             |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: 4426            |             | RunNo: 6443                        |          |              |      |          |      |
| Prep Date: | 10/19/2012      |       | Analysis Date: 10/23/2012 |             | SeqNo: 185392                      |          | Units: mg/kg |      |          |      |
| Analyte    | Result          | PQL   | SPK value                 | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.18            | 0.033 | 0.1685                    | 0.01134     | 99.0                               | 75       | 125          | 1.06 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4441    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186822                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Iron      | ND     | 1.0  |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4441   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186823                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 23     | 2.5  | 25.00     | 0           | 92.2 | 80       | 120       |      |          |      |
| Arsenic   | 23     | 2.5  | 25.00     | 0           | 93.7 | 80       | 120       |      |          |      |
| Barium    | 23     | 0.10 | 25.00     | 0           | 92.2 | 80       | 120       |      |          |      |
| Beryllium | 24     | 0.15 | 25.00     | 0           | 95.1 | 80       | 120       |      |          |      |
| Cadmium   | 23     | 0.10 | 25.00     | 0           | 92.8 | 80       | 120       |      |          |      |
| Chromium  | 23     | 0.30 | 25.00     | 0           | 91.8 | 80       | 120       |      |          |      |
| Cobalt    | 22     | 0.30 | 25.00     | 0           | 88.9 | 80       | 120       |      |          |      |
| Iron      | 23     | 1.0  | 25.00     | 0           | 93.7 | 80       | 120       |      |          |      |
| Lead      | 23     | 0.25 | 25.00     | 0           | 91.3 | 80       | 120       |      |          |      |
| Manganese | 23     | 0.10 | 25.00     | 0.04450     | 90.3 | 80       | 120       |      |          |      |
| Nickel    | 22     | 0.50 | 25.00     | 0           | 87.6 | 80       | 120       |      |          |      |
| Selenium  | 22     | 2.5  | 25.00     | 0           | 87.2 | 80       | 120       |      |          |      |
| Vanadium  | 24     | 2.5  | 25.00     | 0           | 95.4 | 80       | 120       |      |          |      |
| Zinc      | 23     | 2.5  | 25.00     | 0           | 90.7 | 80       | 120       |      |          |      |

|            |                |                |            |           |                               |        |       |  |  |  |
|------------|----------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | 1210656-001CMS | SampType:      | MS         | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | BatchQC        | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:    | 186932                        | Units: | mg/Kg |  |  |  |

| Analyte  | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|-----|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony | 5.2    | 5.0 | 24.67     | 0           | 20.9 | 75       | 125       |      |          | S    |
| Arsenic  | 23     | 5.0 | 24.67     | 2.167       | 85.1 | 75       | 125       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.1

|            |                |      |                           |             |                                         |          |              |      |          |      |
|------------|----------------|------|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1210656-001CMS |      | SampType: MS              |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | BatchQC        |      | Batch ID: 4441            |             | RunNo: 6493                             |          |              |      |          |      |
| Prep Date: | 10/22/2012     |      | Analysis Date: 10/25/2012 |             | SeqNo: 186932                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result         | PQL  | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Beryllium  | 21             | 0.30 | 24.67                     | 0.6108      | 83.1                                    | 75       | 125          |      |          |      |
| Cadmium    | 19             | 0.20 | 24.67                     | 0           | 78.2                                    | 75       | 125          |      |          |      |
| Chromium   | 31             | 0.60 | 24.67                     | 9.563       | 87.0                                    | 75       | 125          |      |          |      |
| Cobalt     | 21             | 0.60 | 24.67                     | 3.401       | 71.6                                    | 75       | 125          |      |          | S    |
| Lead       | 22             | 0.50 | 24.67                     | 4.192       | 72.5                                    | 75       | 125          |      |          | S    |
| Nickel     | 24             | 1.0  | 24.67                     | 5.943       | 73.5                                    | 75       | 125          |      |          | S    |
| Selenium   | 11             | 5.0  | 24.67                     | 0           | 43.9                                    | 75       | 125          |      |          | S    |
| Vanadium   | 41             | 5.0  | 24.67                     | 17.94       | 92.0                                    | 75       | 125          |      |          |      |

|            |                 |                |            |             |           |                               |           |        |          |      |
|------------|-----------------|----------------|------------|-------------|-----------|-------------------------------|-----------|--------|----------|------|
| Sample ID  | 1210656-001CMSD | SampType:      | MSD        |             | TestCode: | EPA Method 6010B: Soil Metals |           |        |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4441       |             | RunNo:    | 6493                          |           |        |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/25/2012 |             | SeqNo:    | 186933                        |           | Units: | mg/Kg    |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC      | LowLimit                      | HighLimit | %RPD   | RPDLimit | Qual |
| Antimony   | ND              | 5.0            | 24.23      | 0           | 20.3      | 75                            | 125       | 200    | 20       | S    |
| Arsenic    | 23              | 5.0            | 24.23      | 2.167       | 87.5      | 75                            | 125       | 0.929  | 20       |      |
| Beryllium  | 21              | 0.30           | 24.23      | 0.6108      | 85.4      | 75                            | 125       | 0.909  | 20       |      |
| Cadmium    | 20              | 0.20           | 24.23      | 0           | 82.3      | 75                            | 125       | 3.30   | 20       |      |
| Chromium   | 30              | 0.60           | 24.23      | 9.563       | 83.1      | 75                            | 125       | 4.37   | 20       |      |
| Cobalt     | 21              | 0.60           | 24.23      | 3.401       | 72.9      | 75                            | 125       | 0.0820 | 20       | S    |
| Lead       | 21              | 0.50           | 24.23      | 4.192       | 70.5      | 75                            | 125       | 3.76   | 20       | S    |
| Nickel     | 24              | 1.0            | 24.23      | 5.943       | 75.3      | 75                            | 125       | 0.450  | 20       |      |
| Selenium   | 13              | 5.0            | 24.23      | 0           | 54.1      | 75                            | 125       | 19.1   | 20       | S    |
| Vanadium   | 39              | 5.0            | 24.23      | 17.94       | 88.1      | 75                            | 125       | 3.41   | 20       |      |

|            |            |      |                           |             |                                         |          |              |      |          |      |
|------------|------------|------|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-4441    |      | SampType: MBLK            |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | PBS        |      | Batch ID: 4441            |             | RunNo: 6546                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |      | Analysis Date: 10/29/2012 |             | SeqNo: 188994                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Silver     | ND         | 0.25 |                           |             |                                         |          |              |      |          |      |

|            |            |      |                           |             |                                         |          |              |      |          |      |
|------------|------------|------|---------------------------|-------------|-----------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-4441   |      | SampType: LCS             |             | TestCode: EPA Method 6010B: Soil Metals |          |              |      |          |      |
| Client ID: | LCSS       |      | Batch ID: 4441            |             | RunNo: 6546                             |          |              |      |          |      |
| Prep Date: | 10/22/2012 |      | Analysis Date: 10/29/2012 |             | SeqNo: 188995                           |          | Units: mg/Kg |      |          |      |
| Analyte    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Silver     | 5.3        | 0.25 | 5.000                     | 0           | 106                                     | 80       | 120          |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210858

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210656-001CMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4441       | RunNo:      | 6598                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/31/2012 | SeqNo:      | 190745                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.2            | 0.50           | 4.935      | 0           | 86.1                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |       |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|-------|----------|------|
| Sample ID  | 1210656-001CMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |       |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4441       | RunNo:      | 6598                          |          |           |       |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/31/2012 | SeqNo:      | 190746                        | Units:   | mg/Kg     |       |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Silver     | 4.2             | 0.50           | 4.847      | 0           | 87.1                          | 75       | 125       | 0.553 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4101  
Website: www.hallenvironmental.com

## Sample Log-In Check List

|                   |                         |                       |                 |
|-------------------|-------------------------|-----------------------|-----------------|
| Client Name:      | Western Refining Gallup | Work Order Number:    | 1210858         |
| Received by/date: | LM 10/18/12             |                       |                 |
| Logged By:        | Michelle Garcia         | 10/18/2012 8:00:00 AM | Michelle Garcia |
| Completed By:     | Michelle Garcia         | 10/18/2012 8:56:17 AM | Michelle Garcia |
| Reviewed By:      | [Signature]             | 10/18/12              |                 |

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

|                                        |       |
|----------------------------------------|-------|
| # of preserved bottles checked for pH: | _____ |
| ( $<2$ or $>12$ unless noted)          |       |
| Adjusted?                              | _____ |
| Checked by:                            | _____ |

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |       |       |                                                                                                                               |
|----------------------|-------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | _____ | Date: | _____                                                                                                                         |
| By Whom:             | _____ | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | _____ |       |                                                                                                                               |
| Client Instructions: | _____ |       |                                                                                                                               |

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0                     | Good      | Yes         |         |           |           |



# Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.  
GALLUP REFINERY  
 Mailing Address: ROUTE 3 BOX 7  
GALLUP, NM 87301  
 Phone #: 505-722-0217  
 email or Fax#: SCOTT CROUCH-RPS

QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)  
 Accreditation  
☐ NELAP ☐ Other  
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush  
 Project Name: SWMU No. 1  
 Project #:

Project Manager: SCOTT CROUCH - RPS  
 Sampler: TRACY PAYNE - RPS  
 On Ice: ☒ Yes ☐ No  
 Sample Temperature: 10  
 Container Type and #  
 Preservative Type  
 HEAL No.  
1210858

| Date     | Time | Matrix                | Sample Request ID | Container Type and # | Preservative Type | HEAL No. |
|----------|------|-----------------------|-------------------|----------------------|-------------------|----------|
| 10/16/12 | 1105 | SOIL-SWMU 1-21(0-0.5) | DUP               | 2 VIALS              | MEOH              | -005     |
|          |      |                       |                   | 3 JARS               | -                 |          |
| 1135     |      | SWMU 1-22(0-0.5)      |                   | 2 VIALS              | MEOH              | -006     |
|          |      |                       |                   | 3 JARS               | -                 |          |
| 1145     |      | SWMU 1-22(1.6-2)      |                   | 2 VIALS              | MEOH              | -007     |
|          |      |                       |                   | 3 JARS               | -                 |          |
| -        |      | MEOH MEQH BLANK       |                   | 2 VIALS              | MEOH              | -008     |
|          |      |                       |                   | 3 JARS               | -                 |          |

Relinquished by: [Signature] Date: 10/18/12 Time: 0800  
 Received by: [Signature] Date: 10/18/12 Time: 0800

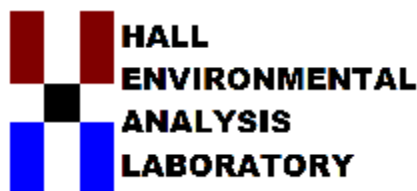


**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

| Analysis Request           |                            |                               |                    |                    |                   |               |                                                                                        |                              |                       |
|----------------------------|----------------------------|-------------------------------|--------------------|--------------------|-------------------|---------------|----------------------------------------------------------------------------------------|------------------------------|-----------------------|
| BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TMB's (8021) | TPH Method 8015B (Gas/Diesel) | TPH (Method 418.1) | EDB (Method 504.1) | 8310 (PNA or PAH) | RCRA 8 Metals | Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) + TPH GRO |
|                            |                            |                               |                    |                    |                   |               |                                                                                        |                              | 8270 (Semi-VOA)       |
|                            |                            |                               |                    |                    |                   |               |                                                                                        |                              | TPH MRO & DRO         |
|                            |                            |                               |                    |                    |                   |               |                                                                                        |                              | METALS                |
|                            |                            |                               |                    |                    |                   |               |                                                                                        |                              | Air Bubbles (Y or N)  |

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 13, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.1

OrderNo.: 1210859

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-23 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:10:00 PM

**Lab ID:** 1210859-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 6:39:57 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 52       |      | mg/Kg | 1   | 10/21/2012 6:39:57 AM |
| Surr: DNOP                                     | 105    | 77.6-140 |      | %REC  | 1   | 10/21/2012 6:39:57 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 3:01:49 AM |
| Surr: BFB                                      | 98.9   | 84-116   |      | %REC  | 1   | 10/26/2012 3:01:49 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC          |
| Mercury                                        | 0.11   | 0.033    |      | mg/kg | 1   | 10/23/2012 6:59:12 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Barium                                         | 670    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:52:13 PM |
| Beryllium                                      | 0.69   | 0.30     |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Chromium                                       | 16     | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Cobalt                                         | 4.0    | 0.60     |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 10/31/2012 2:08:56 PM |
| Lead                                           | 3.0    | 0.50     |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Manganese                                      | 980    | 2.0      |      | mg/Kg | 20  | 10/25/2012 6:52:13 PM |
| Nickel                                         | 7.9    | 1.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:06:02 PM |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| Zinc                                           | 21     | 5.0      |      | mg/Kg | 2   | 10/25/2012 6:49:19 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzoic acid                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 6:26:18 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-23 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:10:00 PM

**Lab ID:** 1210859-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Chloro-3-methylphenol                | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Chloroaniline                        | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Di-n-butyl phthalate                   | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Di-n-octyl phthalate                   | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4-Dichlorophenol                     | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4-Dinitrophenol                      | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,6-Dinitrotoluene                     | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Isophorone                             | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Methylphenol                         | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |

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- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-23 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:10:00 PM

**Lab ID:** 1210859-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Nitrobenzene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2-Nitrophenol                          | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 4-Nitrophenol                          | ND      | 0.50     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Pentachlorophenol                      | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Phenanthrene                           | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Phenol                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Pyrene                                 | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Pyridine                               | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:26:18 PM |
| Surr: 2,4,6-Tribromophenol             | 95.8    | 21.3-145 |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| Surr: 2-Fluorobiphenyl                 | 96.3    | 20-131   |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| Surr: 2-Fluorophenol                   | 91.1    | 11.9-130 |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| Surr: 4-Terphenyl-d14                  | 92.6    | 25.1-149 |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| Surr: Nitrobenzene-d5                  | 105     | 25.6-137 |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| Surr: Phenol-d5                        | 85.5    | 20.3-132 |      | %REC  | 1  | 10/24/2012 6:26:18 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00193 | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Toluene                                | 0.00211 | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Ethylbenzene                           | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Xylenes, Total                         | 0.00180 | 0.00171  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2,4-Trimethylbenzene                 | 0.00102 | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Naphthalene                            | ND      | 0.00171  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1-Methylnaphthalene                    | ND      | 0.00342  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 2-Methylnaphthalene                    | ND      | 0.00342  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Acetone                                | 0.0502  | 0.00855  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Bromobenzene                           | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Bromodichloromethane                   | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Bromoform                              | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Bromomethane                           | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 2-Butanone                             | 0.00903 | 0.00855  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Carbon tetrachloride                   | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Chlorobenzene                          | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Chloroethane                           | ND      | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-23 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:10:00 PM

**Lab ID:** 1210859-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Chloromethane                          | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 2-Chlorotoluene                        | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Carbon disulfide                       | 0.0156 | 0.00855  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 4-Chlorotoluene                        | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| cis-1,2-DCE                            | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Dibromochloromethane                   | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Dibromomethane                         | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Dichlorodifluoromethane                | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1-Dichloroethane                     | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1-Dichloroethene                     | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2-Dichloropropane                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,3-Dichloropropane                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 2,2-Dichloropropane                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1-Dichloropropene                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Hexachlorobutadiene                    | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Isopropylbenzene                       | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 4-Isopropyltoluene                     | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Methylene chloride                     | ND     | 0.00257  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| n-Butylbenzene                         | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 2-Hexanone                             | ND     | 0.00855  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| n-Propylbenzene                        | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| sec-Butylbenzene                       | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Styrene                                | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00855  |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| tert-Butylbenzene                      | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| trans-1,2-DCE                          | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Trichloroethene (TCE)                  | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Trichlorofluoromethane                 | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-23 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:10:00 PM

**Lab ID:** 1210859-001

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Vinyl chloride                         | ND     | 0.000855 |      | mg/Kg | 1  | 10/18/2012 7:59:44 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.1   | 70-130   |      | %REC  | 1  | 10/18/2012 7:59:44 PM |
| Surr: 4-Bromofluorobenzene             | 101    | 70-130   |      | %REC  | 1  | 10/18/2012 7:59:44 PM |
| Surr: Dibromofluoromethane             | 106    | 70-130   |      | %REC  | 1  | 10/18/2012 7:59:44 PM |
| Surr: Toluene-d8                       | 84.7   | 70-130   |      | %REC  | 1  | 10/18/2012 7:59:44 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-39 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:35:00 PM

**Lab ID:** 1210859-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed          |
|------------------------------------------------|--------|----------|------|-------|-----|------------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP           |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/19/2012 12:20:15 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/19/2012 12:20:15 PM |
| Surr: DNOP                                     | 99.5   | 77.6-140 |      | %REC  | 1   | 10/19/2012 12:20:15 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB           |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 3:30:32 AM  |
| Surr: BFB                                      | 99.7   | 84-116   |      | %REC  | 1   | 10/26/2012 3:30:32 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: IDC           |
| Mercury                                        | ND     | 0.033    |      | mg/kg | 1   | 10/23/2012 7:00:59 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF           |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Barium                                         | 450    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:03:53 PM  |
| Beryllium                                      | 0.71   | 0.30     |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Chromium                                       | 10     | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Cobalt                                         | 3.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Iron                                           | 18000  | 500      |      | mg/Kg | 500 | 10/31/2012 2:26:50 PM  |
| Lead                                           | 4.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Manganese                                      | 580    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:03:53 PM  |
| Nickel                                         | 6.2    | 1.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:11:46 PM  |
| Vanadium                                       | 25     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| Zinc                                           | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:00:48 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC           |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 10/24/2012 6:56:31 PM  |

**Qualifiers:**

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- P Sample pH greater than 2
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-39 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:35:00 PM

**Lab ID:** 1210859-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Di-n-octyl phthalate                   | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-39 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:35:00 PM

**Lab ID:** 1210859-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Nitroaniline                         | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Nitrobenzene                           | ND      | 0.50     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2-Nitrophenol                          | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 4-Nitrophenol                          | ND      | 0.25     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Pentachlorophenol                      | ND      | 0.40     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Phenanthrene                           | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Phenol                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Pyrene                                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Pyridine                               | ND      | 0.50     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.20     |      | mg/Kg | 1  | 10/24/2012 6:56:31 PM |
| Surr: 2,4,6-Tribromophenol             | 84.6    | 21.3-145 |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| Surr: 2-Fluorobiphenyl                 | 83.8    | 20-131   |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| Surr: 2-Fluorophenol                   | 72.6    | 11.9-130 |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| Surr: 4-Terphenyl-d14                  | 79.1    | 25.1-149 |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| Surr: Nitrobenzene-d5                  | 91.4    | 25.6-137 |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| Surr: Phenol-d5                        | 75.8    | 20.3-132 |      | %REC  | 1  | 10/24/2012 6:56:31 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00189 | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Toluene                                | 0.00109 | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Ethylbenzene                           | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Xylenes, Total                         | ND      | 0.00154  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Naphthalene                            | ND      | 0.00154  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1-Methylnaphthalene                    | ND      | 0.00308  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 2-Methylnaphthalene                    | ND      | 0.00308  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Acetone                                | 0.0521  | 0.00770  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Bromobenzene                           | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Bromodichloromethane                   | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Bromoform                              | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Bromomethane                           | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 2-Butanone                             | ND      | 0.00770  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Carbon tetrachloride                   | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Chlorobenzene                          | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Chloroethane                           | ND      | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-39 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:35:00 PM

**Lab ID:** 1210859-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Chloromethane                          | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 2-Chlorotoluene                        | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Carbon disulfide                       | ND     | 0.00770  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 4-Chlorotoluene                        | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| cis-1,2-DCE                            | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Dibromochloromethane                   | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Dibromomethane                         | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Dichlorodifluoromethane                | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1-Dichloroethane                     | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1-Dichloroethene                     | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2-Dichloropropane                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,3-Dichloropropane                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 2,2-Dichloropropane                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1-Dichloropropene                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Hexachlorobutadiene                    | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Isopropylbenzene                       | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 4-Isopropyltoluene                     | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Methylene chloride                     | ND     | 0.00231  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| n-Butylbenzene                         | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 2-Hexanone                             | ND     | 0.00770  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| n-Propylbenzene                        | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| sec-Butylbenzene                       | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Styrene                                | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00770  |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| tert-Butylbenzene                      | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| trans-1,2-DCE                          | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Trichloroethene (TCE)                  | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Trichlorofluoromethane                 | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-39 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 12:35:00 PM

**Lab ID:** 1210859-002

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Vinyl chloride                         | ND     | 0.000770 |      | mg/Kg | 1  | 10/18/2012 8:30:32 PM |
| Surr: 1,2-Dichloroethane-d4            | 92.3   | 70-130   |      | %REC  | 1  | 10/18/2012 8:30:32 PM |
| Surr: 4-Bromofluorobenzene             | 103    | 70-130   |      | %REC  | 1  | 10/18/2012 8:30:32 PM |
| Surr: Dibromofluoromethane             | 105    | 70-130   |      | %REC  | 1  | 10/18/2012 8:30:32 PM |
| Surr: Toluene-d8                       | 84.9   | 70-130   |      | %REC  | 1  | 10/18/2012 8:30:32 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:00:00 PM

**Lab ID:** 1210859-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 4:42:29 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 10/21/2012 4:42:29 PM |
| Surr: DNOP                                     | 104    | 77.6-140 |      | %REC  | 1   | 10/21/2012 4:42:29 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 3:59:12 AM |
| Surr: BFB                                      | 98.9   | 84-116   |      | %REC  | 1   | 10/26/2012 3:59:12 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: JLF          |
| Mercury                                        | ND     | 0.033    |      | mg/Kg | 1   | 11/1/2012 3:57:37 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Barium                                         | 370    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:27:51 PM |
| Beryllium                                      | 0.53   | 0.30     |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Chromium                                       | 14     | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Cobalt                                         | 3.2    | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 10/25/2012 7:30:37 PM |
| Lead                                           | 5.6    | 0.50     |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Manganese                                      | 310    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:27:51 PM |
| Nickel                                         | 8.6    | 1.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Silver                                         | ND     | 0.25     |      | mg/Kg | 1   | 10/31/2012 2:29:39 PM |
| Vanadium                                       | 21     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| Zinc                                           | 27     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:24:44 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 10/24/2012 7:26:43 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:00:00 PM

**Lab ID:** 1210859-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Di-n-octyl phthalate                   | ND     | 2.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:00:00 PM

**Lab ID:** 1210859-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Nitrobenzene                           | ND      | 2.5      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2-Nitrophenol                          | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 4-Nitrophenol                          | ND      | 1.3      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Pentachlorophenol                      | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Phenanthrene                           | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Phenol                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Pyrene                                 | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Pyridine                               | ND      | 2.5      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4,5-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| 2,4,6-Trichlorophenol                  | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 7:26:43 PM |
| Surr: 2,4,6-Tribromophenol             | 79.2    | 21.3-145 |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| Surr: 2-Fluorobiphenyl                 | 91.4    | 20-131   |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| Surr: 2-Fluorophenol                   | 93.5    | 11.9-130 |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| Surr: 4-Terphenyl-d14                  | 103     | 25.1-149 |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| Surr: Nitrobenzene-d5                  | 98.3    | 25.6-137 |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| Surr: Phenol-d5                        | 87.3    | 20.3-132 |      | %REC  | 1  | 10/24/2012 7:26:43 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Toluene                                | 0.00202 | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Ethylbenzene                           | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Xylenes, Total                         | 0.00162 | 0.00159  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2,4-Trimethylbenzene                 | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Naphthalene                            | ND      | 0.00159  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1-Methylnaphthalene                    | ND      | 0.00318  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 2-Methylnaphthalene                    | ND      | 0.00318  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Acetone                                | 0.0398  | 0.00795  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Bromobenzene                           | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Bromodichloromethane                   | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Bromoform                              | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Bromomethane                           | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 2-Butanone                             | ND      | 0.00795  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Carbon tetrachloride                   | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Chlorobenzene                          | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Chloroethane                           | ND      | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:00:00 PM

**Lab ID:** 1210859-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Chloromethane                          | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 2-Chlorotoluene                        | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Carbon disulfide                       | ND     | 0.00795  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 4-Chlorotoluene                        | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| cis-1,2-DCE                            | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Dibromochloromethane                   | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Dibromomethane                         | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Dichlorodifluoromethane                | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1-Dichloroethane                     | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1-Dichloroethene                     | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2-Dichloropropane                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,3-Dichloropropane                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 2,2-Dichloropropane                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1-Dichloropropene                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Hexachlorobutadiene                    | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Isopropylbenzene                       | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 4-Isopropyltoluene                     | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Methylene chloride                     | ND     | 0.00238  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| n-Butylbenzene                         | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 2-Hexanone                             | ND     | 0.00795  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| n-Propylbenzene                        | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| sec-Butylbenzene                       | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Styrene                                | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00795  |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| tert-Butylbenzene                      | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| trans-1,2-DCE                          | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Trichloroethene (TCE)                  | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Trichlorofluoromethane                 | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:00:00 PM

**Lab ID:** 1210859-003

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Vinyl chloride                         | ND     | 0.000795 |      | mg/Kg | 1  | 10/18/2012 9:01:18 PM |
| Surr: 1,2-Dichloroethane-d4            | 96.2   | 70-130   |      | %REC  | 1  | 10/18/2012 9:01:18 PM |
| Surr: 4-Bromofluorobenzene             | 91.8   | 70-130   |      | %REC  | 1  | 10/18/2012 9:01:18 PM |
| Surr: Dibromofluoromethane             | 109    | 70-130   |      | %REC  | 1  | 10/18/2012 9:01:18 PM |
| Surr: Toluene-d8                       | 83.5   | 70-130   |      | %REC  | 1  | 10/18/2012 9:01:18 PM |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:15:00 PM

**Lab ID:** 1210859-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: SCC          |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 10/21/2012 5:07:51 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 10/21/2012 5:07:51 PM |
| Surr: DNOP                                     | 106    | 77.6-140 |      | %REC  | 1   | 10/21/2012 5:07:51 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 4:27:52 AM |
| Surr: BFB                                      | 96.4   | 84-116   |      | %REC  | 1   | 10/26/2012 4:27:52 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: JLF          |
| Mercury                                        | 0.034  | 0.033    |      | mg/Kg | 1   | 11/1/2012 4:04:25 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Barium                                         | 360    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:39:34 PM |
| Beryllium                                      | 0.45   | 0.30     |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Chromium                                       | 12     | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Cobalt                                         | 4.3    | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Iron                                           | 10000  | 500      |      | mg/Kg | 500 | 10/25/2012 7:42:20 PM |
| Lead                                           | 4.1    | 0.50     |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Manganese                                      | 270    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:39:34 PM |
| Nickel                                         | 9.8    | 1.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:32:45 PM |
| Vanadium                                       | 20     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| Zinc                                           | 28     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:36:32 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Acenaphthylene                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Aniline                                        | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Anthracene                                     | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Azobenzene                                     | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benz(a)anthracene                              | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzo(a)pyrene                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzo(b)fluoranthene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzo(k)fluoranthene                           | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Benzyl alcohol                                 | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 7:56:49 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:15:00 PM

**Lab ID:** 1210859-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Butyl benzyl phthalate                 | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Carbazole                              | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Chloroaniline                        | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Chloronaphthalene                    | ND     | 1.2  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Chlorophenol                         | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Chrysene                               | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Di-n-butyl phthalate                   | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Di-n-octyl phthalate                   | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Dibenzofuran                           | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.2  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Diethyl phthalate                      | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Dimethyl phthalate                     | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Fluoranthene                           | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Fluorene                               | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Hexachlorobenzene                      | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Hexachlorobutadiene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Hexachlorocyclopentadiene              | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Hexachloroethane                       | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Isophorone                             | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 1-Methylnaphthalene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Methylnaphthalene                    | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Methylphenol                         | ND     | 2.5  |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 3+4-Methylphenol                       | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Naphthalene                            | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Nitroaniline                         | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |

**Qualifiers:**

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:15:00 PM

**Lab ID:** 1210859-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|---------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Nitroaniline                         | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Nitrobenzene                           | ND      | 2.5      |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2-Nitrophenol                          | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 4-Nitrophenol                          | ND      | 1.2      |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Pentachlorophenol                      | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Phenanthrene                           | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Phenol                                 | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Pyrene                                 | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Pyridine                               | ND      | 2.5      |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 1,2,4-Trichlorobenzene                 | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4,5-Trichlorophenol                  | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| 2,4,6-Trichlorophenol                  | ND      | 0.99     |      | mg/Kg | 1  | 10/24/2012 7:56:49 PM |
| Surr: 2,4,6-Tribromophenol             | 64.9    | 21.3-145 |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| Surr: 2-Fluorobiphenyl                 | 87.6    | 20-131   |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| Surr: 2-Fluorophenol                   | 87.3    | 11.9-130 |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| Surr: 4-Terphenyl-d14                  | 111     | 25.1-149 |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| Surr: Nitrobenzene-d5                  | 95.7    | 25.6-137 |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| Surr: Phenol-d5                        | 82.8    | 20.3-132 |      | %REC  | 1  | 10/24/2012 7:56:49 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA          |
| Benzene                                | 0.00130 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Toluene                                | 0.00428 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Ethylbenzene                           | 0.00115 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Xylenes, Total                         | 0.00404 | 0.00212  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2,4-Trimethylbenzene                 | 0.00110 | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Naphthalene                            | ND      | 0.00212  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1-Methylnaphthalene                    | ND      | 0.00425  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 2-Methylnaphthalene                    | ND      | 0.00425  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Acetone                                | 0.0739  | 0.0106   |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Bromobenzene                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Bromodichloromethane                   | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Bromoform                              | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Bromomethane                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 2-Butanone                             | ND      | 0.0106   |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Carbon tetrachloride                   | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Chlorobenzene                          | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Chloroethane                           | ND      | 0.00106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:15:00 PM

**Lab ID:** 1210859-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| Chloroform                             | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Chloromethane                          | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 2-Chlorotoluene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Carbon disulfide                       | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 4-Chlorotoluene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| cis-1,2-DCE                            | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| cis-1,3-Dichloropropene                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Dibromochloromethane                   | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Dibromomethane                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Dichlorodifluoromethane                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1-Dichloroethane                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1-Dichloroethene                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,3-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 2,2-Dichloropropane                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1-Dichloropropene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Hexachlorobutadiene                    | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Isopropylbenzene                       | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 4-Isopropyltoluene                     | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Methylene chloride                     | ND     | 0.00319 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| n-Butylbenzene                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 2-Hexanone                             | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| n-Propylbenzene                        | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| sec-Butylbenzene                       | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Styrene                                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.0106  |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| tert-Butylbenzene                      | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Tetrachloroethene (PCE)                | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| trans-1,2-DCE                          | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| trans-1,3-Dichloropropene              | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Trichloroethene (TCE)                  | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Trichlorofluoromethane                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-25 (0.5-1')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:15:00 PM

**Lab ID:** 1210859-004

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL      | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|---------|------|-------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |         |      |       |    | Analyst: RAA          |
| 1,2,3-Trichloropropane                 | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Vinyl chloride                         | ND     | 0.00106 |      | mg/Kg | 1  | 10/18/2012 9:32:07 PM |
| Surr: 1,2-Dichloroethane-d4            | 93.4   | 70-130  |      | %REC  | 1  | 10/18/2012 9:32:07 PM |
| Surr: 4-Bromofluorobenzene             | 94.0   | 70-130  |      | %REC  | 1  | 10/18/2012 9:32:07 PM |
| Surr: Dibromofluoromethane             | 105    | 70-130  |      | %REC  | 1  | 10/18/2012 9:32:07 PM |
| Surr: Toluene-d8                       | 89.6   | 70-130  |      | %REC  | 1  | 10/18/2012 9:32:07 PM |

### Qualifiers:

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J Analyte detected below quantitation limits  
P Sample pH greater than 2  
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-26 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:35:00 PM

**Lab ID:** 1210859-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 10/21/2012 8:20:05 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 48       |      | mg/Kg | 1   | 10/21/2012 8:20:05 AM |
| Surr: DNOP                                     | 104    | 77.6-140 |      | %REC  | 1   | 10/21/2012 8:20:05 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 3:05:35 PM |
| Surr: BFB                                      | 98.1   | 84-116   |      | %REC  | 1   | 10/26/2012 3:05:35 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: JLF          |
| Mercury                                        | 0.051  | 0.033    |      | mg/Kg | 1   | 11/1/2012 4:06:12 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Barium                                         | 390    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:50:55 PM |
| Beryllium                                      | 0.62   | 0.30     |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Chromium                                       | 7.9    | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Cobalt                                         | 3.7    | 0.60     |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 10/25/2012 8:05:04 PM |
| Lead                                           | 2.7    | 0.50     |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Manganese                                      | 670    | 2.0      |      | mg/Kg | 20  | 10/25/2012 7:50:55 PM |
| Nickel                                         | 6.1    | 1.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:35:55 PM |
| Vanadium                                       | 14     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| Zinc                                           | 16     | 5.0      |      | mg/Kg | 2   | 10/25/2012 7:48:02 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Acenaphthylene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Aniline                                        | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Anthracene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Azobenzene                                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benz(a)anthracene                              | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzo(a)pyrene                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzo(b)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzo(k)fluoranthene                           | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzoic acid                                   | ND     | 0.99     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Benzyl alcohol                                 | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.40     |      | mg/Kg | 1   | 10/24/2012 8:26:49 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-26 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:35:00 PM

**Lab ID:** 1210859-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Butyl benzyl phthalate                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Carbazole                              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 4-Chloroaniline                        | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2-Chloronaphthalene                    | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2-Chlorophenol                         | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Chrysene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Di-n-butyl phthalate                   | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Di-n-octyl phthalate                   | ND     | 0.79 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Dibenzofuran                           | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.50 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Diethyl phthalate                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Dimethyl phthalate                     | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2,4-Dichlorophenol                     | ND     | 0.79 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2,4-Dimethylphenol                     | ND     | 0.60 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2,4-Dinitrophenol                      | ND     | 0.79 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Fluoranthene                           | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Fluorene                               | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Hexachlorobenzene                      | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Hexachlorobutadiene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Hexachlorocyclopentadiene              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Hexachloroethane                       | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Isophorone                             | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 1-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2-Methylnaphthalene                    | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2-Methylphenol                         | ND     | 0.99 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 3+4-Methylphenol                       | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| Naphthalene                            | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |
| 2-Nitroaniline                         | ND     | 0.40 |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM |

**Qualifiers:**

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-26 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:35:00 PM

**Lab ID:** 1210859-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result   | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|----------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |          |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 4-Nitroaniline                         | ND       | 0.79     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Nitrobenzene                           | ND       | 0.99     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 2-Nitrophenol                          | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 4-Nitrophenol                          | ND       | 0.50     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Pentachlorophenol                      | ND       | 0.79     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Phenanthrene                           | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Phenol                                 | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Pyrene                                 | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Pyridine                               | ND       | 0.99     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 1,2,4-Trichlorobenzene                 | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 2,4,5-Trichlorophenol                  | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| 2,4,6-Trichlorophenol                  | ND       | 0.40     |      | mg/Kg | 1  | 10/24/2012 8:26:49 PM  |
| Surr: 2,4,6-Tribromophenol             | 84.7     | 21.3-145 |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| Surr: 2-Fluorobiphenyl                 | 79.8     | 20-131   |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| Surr: 2-Fluorophenol                   | 85.5     | 11.9-130 |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| Surr: 4-Terphenyl-d14                  | 82.6     | 25.1-149 |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| Surr: Nitrobenzene-d5                  | 98.8     | 25.6-137 |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| Surr: Phenol-d5                        | 80.2     | 20.3-132 |      | %REC  | 1  | 10/24/2012 8:26:49 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |          |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00185  | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Toluene                                | 0.00369  | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Ethylbenzene                           | 0.00121  | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Xylenes, Total                         | 0.00503  | 0.00147  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Methyl tert-butyl ether (MTBE)         | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2,4-Trimethylbenzene                 | 0.00207  | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,3,5-Trimethylbenzene                 | 0.000828 | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2-Dichloroethane (EDC)               | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2-Dibromoethane (EDB)                | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Naphthalene                            | ND       | 0.00147  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1-Methylnaphthalene                    | ND       | 0.00293  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 2-Methylnaphthalene                    | ND       | 0.00293  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Acetone                                | 0.0644   | 0.00733  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Bromobenzene                           | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Bromodichloromethane                   | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Bromoform                              | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Bromomethane                           | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 2-Butanone                             | ND       | 0.00733  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Carbon tetrachloride                   | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Chlorobenzene                          | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Chloroethane                           | ND       | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-26 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:35:00 PM

**Lab ID:** 1210859-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Chloromethane                          | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 2-Chlorotoluene                        | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Carbon disulfide                       | ND     | 0.00733  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 4-Chlorotoluene                        | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| cis-1,2-DCE                            | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Dibromochloromethane                   | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Dibromomethane                         | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Dichlorodifluoromethane                | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1-Dichloroethane                     | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1-Dichloroethene                     | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2-Dichloropropane                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,3-Dichloropropane                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 2,2-Dichloropropane                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1-Dichloropropene                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Hexachlorobutadiene                    | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Isopropylbenzene                       | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 4-Isopropyltoluene                     | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Methylene chloride                     | ND     | 0.00220  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| n-Butylbenzene                         | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 2-Hexanone                             | ND     | 0.00733  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| n-Propylbenzene                        | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| sec-Butylbenzene                       | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Styrene                                | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00733  |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| tert-Butylbenzene                      | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| trans-1,2-DCE                          | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Trichloroethene (TCE)                  | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Trichlorofluoromethane                 | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-26 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 1:35:00 PM

**Lab ID:** 1210859-005

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Vinyl chloride                         | ND     | 0.000733 |      | mg/Kg | 1  | 10/18/2012 10:02:52 PM |
| Surr: 1,2-Dichloroethane-d4            | 91.4   | 70-130   |      | %REC  | 1  | 10/18/2012 10:02:52 PM |
| Surr: 4-Bromofluorobenzene             | 104    | 70-130   |      | %REC  | 1  | 10/18/2012 10:02:52 PM |
| Surr: Dibromofluoromethane             | 98.1   | 70-130   |      | %REC  | 1  | 10/18/2012 10:02:52 PM |
| Surr: Toluene-d8                       | 95.4   | 70-130   |      | %REC  | 1  | 10/18/2012 10:02:52 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-29 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 2:40:00 PM

**Lab ID:** 1210859-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 76     | 9.6      |      | mg/Kg | 1   | 10/21/2012 9:10:18 AM |
| Motor Oil Range Organics (MRO)                 | 110    | 48       |      | mg/Kg | 1   | 10/21/2012 9:10:18 AM |
| Surr: DNOP                                     | 112    | 77.6-140 |      | %REC  | 1   | 10/21/2012 9:10:18 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 10/26/2012 3:34:21 PM |
| Surr: BFB                                      | 97.4   | 84-116   |      | %REC  | 1   | 10/26/2012 3:34:21 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: JLF          |
| Mercury                                        | 0.22   | 0.033    |      | mg/Kg | 1   | 11/1/2012 4:07:57 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Arsenic                                        | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Barium                                         | 550    | 2.0      |      | mg/Kg | 20  | 10/25/2012 8:13:48 PM |
| Beryllium                                      | 0.69   | 0.30     |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Cadmium                                        | ND     | 0.20     |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Chromium                                       | 17     | 0.60     |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Cobalt                                         | 5.1    | 0.60     |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Iron                                           | 15000  | 500      |      | mg/Kg | 500 | 10/25/2012 8:16:27 PM |
| Lead                                           | 7.0    | 0.50     |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Manganese                                      | 620    | 2.0      |      | mg/Kg | 20  | 10/25/2012 8:13:48 PM |
| Nickel                                         | 9.3    | 1.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Selenium                                       | ND     | 5.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Silver                                         | ND     | 0.50     |      | mg/Kg | 2   | 10/31/2012 2:38:49 PM |
| Vanadium                                       | 19     | 5.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| Zinc                                           | 48     | 5.0      |      | mg/Kg | 2   | 10/25/2012 8:10:53 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Acenaphthylene                                 | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Aniline                                        | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Anthracene                                     | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Azobenzene                                     | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benz(a)anthracene                              | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzo(a)pyrene                                 | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzo(b)fluoranthene                           | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzo(k)fluoranthene                           | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzoic acid                                   | ND     | 2.0      |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Benzyl alcohol                                 | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.80     |      | mg/Kg | 1   | 10/24/2012 8:56:42 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-29 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 2:40:00 PM

**Lab ID:** 1210859-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC          |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Butyl benzyl phthalate                 | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Carbazole                              | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 4-Chloroaniline                        | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2-Chloronaphthalene                    | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2-Chlorophenol                         | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Chrysene                               | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Di-n-butyl phthalate                   | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Di-n-octyl phthalate                   | ND     | 1.6  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Dibenzofuran                           | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Diethyl phthalate                      | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Dimethyl phthalate                     | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2,4-Dichlorophenol                     | ND     | 1.6  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2,4-Dimethylphenol                     | ND     | 1.2  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2,4-Dinitrophenol                      | ND     | 1.6  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Fluoranthene                           | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Fluorene                               | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Hexachlorobenzene                      | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Hexachlorobutadiene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Hexachlorocyclopentadiene              | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Hexachloroethane                       | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Isophorone                             | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 1-Methylnaphthalene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2-Methylnaphthalene                    | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2-Methylphenol                         | ND     | 2.0  |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 3+4-Methylphenol                       | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| Naphthalene                            | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |
| 2-Nitroaniline                         | ND     | 0.80 |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-29 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 2:40:00 PM

**Lab ID:** 1210859-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result  | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|---------|----------|------|-------|----|------------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |         |          |      |       |    | Analyst: JDC           |
| 3-Nitroaniline                         | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 4-Nitroaniline                         | ND      | 1.6      |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Nitrobenzene                           | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 2-Nitrophenol                          | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 4-Nitrophenol                          | ND      | 1.0      |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Pentachlorophenol                      | ND      | 1.6      |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Phenanthrene                           | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Phenol                                 | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Pyrene                                 | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Pyridine                               | ND      | 2.0      |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 1,2,4-Trichlorobenzene                 | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 2,4,5-Trichlorophenol                  | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| 2,4,6-Trichlorophenol                  | ND      | 0.80     |      | mg/Kg | 1  | 10/24/2012 8:56:42 PM  |
| Surr: 2,4,6-Tribromophenol             | 84.6    | 21.3-145 |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| Surr: 2-Fluorobiphenyl                 | 79.2    | 20-131   |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| Surr: 2-Fluorophenol                   | 82.8    | 11.9-130 |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| Surr: 4-Terphenyl-d14                  | 86.9    | 25.1-149 |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| Surr: Nitrobenzene-d5                  | 89.4    | 25.6-137 |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| Surr: Phenol-d5                        | 80.3    | 20.3-132 |      | %REC  | 1  | 10/24/2012 8:56:42 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |         |          |      |       |    | Analyst: RAA           |
| Benzene                                | 0.00236 | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Toluene                                | 0.00327 | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Ethylbenzene                           | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Xylenes, Total                         | 0.00307 | 0.00164  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Methyl tert-butyl ether (MTBE)         | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2,4-Trimethylbenzene                 | 0.00116 | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,3,5-Trimethylbenzene                 | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2-Dichloroethane (EDC)               | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2-Dibromoethane (EDB)                | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Naphthalene                            | ND      | 0.00164  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1-Methylnaphthalene                    | ND      | 0.00327  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 2-Methylnaphthalene                    | ND      | 0.00327  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Acetone                                | 0.0641  | 0.00818  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Bromobenzene                           | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Bromodichloromethane                   | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Bromoform                              | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Bromomethane                           | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 2-Butanone                             | ND      | 0.00818  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Carbon tetrachloride                   | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Chlorobenzene                          | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Chloroethane                           | ND      | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-29 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 2:40:00 PM

**Lab ID:** 1210859-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| Chloroform                             | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Chloromethane                          | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 2-Chlorotoluene                        | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Carbon disulfide                       | ND     | 0.00818  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 4-Chlorotoluene                        | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| cis-1,2-DCE                            | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| cis-1,3-Dichloropropene                | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Dibromochloromethane                   | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Dibromomethane                         | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Dichlorodifluoromethane                | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1-Dichloroethane                     | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1-Dichloroethene                     | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2-Dichloropropane                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,3-Dichloropropane                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 2,2-Dichloropropane                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1-Dichloropropene                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Hexachlorobutadiene                    | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Isopropylbenzene                       | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 4-Isopropyltoluene                     | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Methylene chloride                     | ND     | 0.00245  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| n-Butylbenzene                         | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 2-Hexanone                             | ND     | 0.00818  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| n-Propylbenzene                        | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| sec-Butylbenzene                       | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Styrene                                | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 4-Methyl-2-pentanone                   | ND     | 0.00818  |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| tert-Butylbenzene                      | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Tetrachloroethene (PCE)                | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| trans-1,2-DCE                          | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| trans-1,3-Dichloropropene              | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Trichloroethene (TCE)                  | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Trichlorofluoromethane                 | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1210859

Date Reported: 11/13/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 1-29 (0-0.5')

**Project:** SWMU NO.1

**Collection Date:** 10/16/2012 2:40:00 PM

**Lab ID:** 1210859-006

**Matrix:** SOIL

**Received Date:** 10/18/2012 8:00:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed          |
|----------------------------------------|--------|----------|------|-------|----|------------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |       |    | Analyst: RAA           |
| 1,2,3-Trichloropropane                 | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Vinyl chloride                         | ND     | 0.000818 |      | mg/Kg | 1  | 10/18/2012 10:33:37 PM |
| Surr: 1,2-Dichloroethane-d4            | 87.2   | 70-130   |      | %REC  | 1  | 10/18/2012 10:33:37 PM |
| Surr: 4-Bromofluorobenzene             | 132    | 70-130   | S    | %REC  | 1  | 10/18/2012 10:33:37 PM |
| Surr: Dibromofluoromethane             | 99.7   | 70-130   |      | %REC  | 1  | 10/18/2012 10:33:37 PM |
| Surr: Toluene-d8                       | 98.6   | 70-130   |      | %REC  | 1  | 10/18/2012 10:33:37 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019046  
**Project Name:** 1210859

## Analytical Results Report

|                         |                                  |                      |            |                           |                    |
|-------------------------|----------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019046-001                    | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210859-001D / SWMU 1-23 (0-0.5) | <b>Sampling Time</b> | 12:10 PM   |                           |                    |
| <b>Matrix</b>           | Soil                             |                      |            |                           |                    |
| <b>Comments</b>         |                                  |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.253 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.9    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

|                         |                                  |                      |            |                           |                    |
|-------------------------|----------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019046-002                    | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210859-002D / SWMU 1-39 (0-0.5) | <b>Sampling Time</b> | 12:35 PM   |                           |                    |
| <b>Matrix</b>           | Soil                             |                      |            |                           |                    |
| <b>Comments</b>         |                                  |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.259 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 4.1    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019046  
**Project Name:** 1210859

## Analytical Results Report

**Sample Number** 121019046-003 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM  
**Client Sample ID** 1210859-003D / SWMU 1-25 (0-0.5) **Sampling Time** 1:00 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.259 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 3.9    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

**Sample Number** 121019046-004 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM  
**Client Sample ID** 1210859-004D / SWMU 1-25 (0.5-1) **Sampling Time** 1:15 PM  
**Matrix** Soil  
**Comments**

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.268 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 7.3    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 121019046  
**Project Name:** 1210859

## Analytical Results Report

|                         |                                  |                      |            |                           |                    |
|-------------------------|----------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019046-005                    | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210859-005D / SWMU 1-26 (0-0.5) | <b>Sampling Time</b> | 1:35 PM    |                           |                    |
| <b>Matrix</b>           | Soil                             |                      |            |                           |                    |
| <b>Comments</b>         |                                  |                      |            |                           |                    |

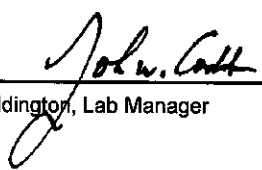
| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg   | 0.246 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 3.8    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

|                         |                                  |                      |            |                           |                    |
|-------------------------|----------------------------------|----------------------|------------|---------------------------|--------------------|
| <b>Sample Number</b>    | 121019046-006                    | <b>Sampling Date</b> | 10/16/2012 | <b>Date/Time Received</b> | 10/19/2012 1:14 PM |
| <b>Client Sample ID</b> | 1210859-006D / SWMU 1-29 (0-0.5) | <b>Sampling Time</b> | 2:40 PM    |                           |                    |
| <b>Matrix</b>           | Soil                             |                      |            |                           |                    |
| <b>Comments</b>         |                                  |                      |            |                           |                    |

| Parameter | Result | Units   | PQL   | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|---------|-------|---------------|---------|-----------|-----------|
| Cyanide   | 6.05   | mg/Kg   | 0.256 | 10/30/2012    | CRW     | EPA 335.4 |           |
| %moisture | 2.8    | Percent |       | 10/30/2012    | TGT     | %moisture |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Monday, November 05, 2012

Page 3 of 3

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |     |                           |             |                                                   |          |              |      |          |      |
|--------------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-4404    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS        |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182984                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND         | 10  |                           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND         | 50  |                           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 9.6        |     | 10.00                     |             | 95.6                                              | 77.6     | 140          |      |          |      |

|                             |            |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-4404   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS       |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |     | Analysis Date: 10/19/2012 |             | SeqNo: 182985                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 34         | 10  | 50.00                     | 0           | 67.4                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.5        |     | 5.000                     |             | 90.3                                              | 77.6     | 140          |      |          |      |

|                             |                |                           |           |             |                                                   |          |              |      |          |      |
|-----------------------------|----------------|---------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210819-001AMS | SampType: MS              |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | BatchQC        | Batch ID: 4404            |           |             | RunNo: 6356                                       |          |              |      |          |      |
| Prep Date:                  | 10/18/2012     | Analysis Date: 10/19/2012 |           |             | SeqNo: 183001                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result         | PQL                       | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 67             | 12                        | 58.99     | 27.06       | 67.2                                              | 57.2     | 146          |      |          |      |
| Surr: DNOP                  | 4.7            |                           | 5.899     |             | 79.7                                              | 77.6     | 140          |      |          |      |

|                             |                 |     |                           |             |                                                   |          |              |      |          |      |
|-----------------------------|-----------------|-----|---------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1210819-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | BatchQC         |     | Batch ID: 4404            |             | RunNo: 6356                                       |          |              |      |          |      |
| Prep Date:                  | 10/18/2012      |     | Analysis Date: 10/19/2012 |             | SeqNo: 183002                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 69              | 12  | 61.48                     | 27.06       | 68.9                                              | 57.2     | 146          | 4.05 | 24.5     |      |
| Surr: DNOP                  | 4.9             |     | 6.148                     |             | 79.2                                              | 77.6     | 140          | 0    | 0        |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4474    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012 |     | Analysis Date: 10/25/2012 |             | SeqNo: 187625                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 950        |     | 1000                      |             | 95.0                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4474   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012 |     | Analysis Date: 10/25/2012 |             | SeqNo: 187626                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 25         | 5.0 | 25.00                     | 0           | 102                                        | 74       | 117          |      |          |      |
| Surr: BFB                     | 1000       |     | 1000                      |             | 100                                        | 84       | 116          |      |          |      |

|                               |                |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1210A08-001AMS |     | SampType: MS              |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |      |          |      |
| Prep Date:                    | 10/23/2012     |     | Analysis Date: 10/25/2012 |             | SeqNo: 187638                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 33             | 4.9 | 24.34                     | 11.22       | 90.8                                       | 70       | 130          |      |          |      |
| Surr: BFB                     | 1100           |     | 973.7                     |             | 117                                        | 84       | 116          |      |          | S    |

|                               |                 |     |                           |             |                                            |          |              |       |          |      |
|-------------------------------|-----------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|-------|----------|------|
| Sample ID                     | 1210A08-001AMSD |     | SampType: MSD             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |       |          |      |
| Client ID:                    | BatchQC         |     | Batch ID: 4474            |             | RunNo: 6487                                |          |              |       |          |      |
| Prep Date:                    | 10/23/2012      |     | Analysis Date: 10/25/2012 |             | SeqNo: 187639                              |          | Units: mg/Kg |       |          |      |
| Analyte                       | Result          | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD  | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 33              | 4.9 | 24.39                     | 11.22       | 89.9                                       | 70       | 130          | 0.479 | 22.1     |      |
| Surr: BFB                     | 1100            |     | 975.6                     |             | 115                                        | 84       | 116          | 0     | 0        |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-4447    |     | SampType: MBLK            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS        |     | Batch ID: 4447            |             | RunNo: 6512                                |          |              |      |          |      |
| Prep Date:                    | 10/22/2012 |     | Analysis Date: 10/26/2012 |             | SeqNo: 187995                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND         | 5.0 |                           |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 990        |     | 1000                      |             | 99.3                                       | 84       | 116          |      |          |      |

|                               |            |     |                           |             |                                            |          |              |      |          |      |
|-------------------------------|------------|-----|---------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-4447   |     | SampType: LCS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS       |     | Batch ID: 4447            |             | RunNo: 6512                                |          |              |      |          |      |
| Prep Date:                    | 10/22/2012 |     | Analysis Date: 10/26/2012 |             | SeqNo: 187996                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 26         | 5.0 | 25.00                     | 0           | 106                                        | 74       | 117          |      |          |      |
| Surr: BFB                     | 1000       |     | 1000                      |             | 103                                        | 84       | 116          |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                                |            |         |                           |             |                                           |          |              |      |          |      |
|--------------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                     | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                     | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Toluene                        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Ethylbenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Xylenes, Total                 | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3,5-Trimethylbenzene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Naphthalene                    | ND         | 0.00200 |                           |             |                                           |          |              |      |          |      |
| 1-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| 2-Methylnaphthalene            | ND         | 0.00400 |                           |             |                                           |          |              |      |          |      |
| Acetone                        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Bromobenzene                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromodichloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromoform                      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Bromomethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Butanone                     | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| Carbon tetrachloride           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chlorobenzene                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroethane                   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloroform                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Chloromethane                  | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Carbon disulfide               | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| 4-Chlorotoluene                | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,2-DCE                    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| cis-1,3-Dichloropropene        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromochloromethane           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dibromomethane                 | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,4-Dichlorobenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Dichlorodifluoromethane        | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethane             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloroethene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,3-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2,2-Dichloropropane            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1-Dichloropropene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |         |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|---------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4393    |         | SampType: MBLK            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | PBS        |         | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |         | Analysis Date: 10/18/2012 |             | SeqNo: 182928                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL     | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Hexachlorobutadiene         | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Isopropylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Isopropyltoluene          | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Methylene chloride          | ND         | 0.00300 |                           |             |                                           |          |              |      |          |      |
| n-Butylbenzene              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 2-Hexanone                  | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| n-Propylbenzene             | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| sec-Butylbenzene            | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Styrene                     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 4-Methyl-2-pentanone        | ND         | 0.0100  |                           |             |                                           |          |              |      |          |      |
| tert-Butylbenzene           | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Tetrachloroethene (PCE)     | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,2-DCE               | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| trans-1,3-Dichloropropene   | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,4-Trichlorobenzene      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,1-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,1,2-Trichloroethane       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichloroethene (TCE)       | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Trichlorofluoromethane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| 1,2,3-Trichloropropane      | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Vinyl chloride              | ND         | 0.00100 |                           |             |                                           |          |              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 46.1       |         | 50.00                     |             | 92.1                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 44.8       |         | 50.00                     |             | 89.6                                      | 70       | 130          |      |          |      |
| Surr: Dibromofluoromethane  | 53.0       |         | 50.00                     |             | 106                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8            | 42.4       |         | 50.00                     |             | 84.8                                      | 70       | 130          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | lcs-4393   |      | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                  | LCSS       |      | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                  | 10/18/2012 |      | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                     | 8.87       | 1.00 | 10.00                     | 0           | 88.7                                      | 60       | 140          |      |          |      |
| Toluene                     | 8.50       | 1.00 | 10.00                     | 0           | 85.0                                      | 60       | 140          |      |          |      |
| Chlorobenzene               | 9.38       | 1.00 | 10.00                     | 0           | 93.8                                      | 60       | 140          |      |          |      |
| 1,1-Dichloroethene          | 11.0       | 1.00 | 10.00                     | 0           | 110                                       | 60       | 140          |      |          |      |
| Trichloroethene (TCE)       | 7.70       | 1.00 | 10.00                     | 0           | 77.0                                      | 60       | 140          |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 44.9       |      | 50.00                     |             | 89.8                                      | 70       | 130          |      |          |      |
| Surr: 4-Bromofluorobenzene  | 40.9       |      | 50.00                     |             | 81.7                                      | 70       | 130          |      |          |      |

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |            |     |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|-----|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4393   |     | SampType: LCS             |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |              |      |          |      |
| Client ID:                 | LCSS       |     | Batch ID: 4393            |             | RunNo: 6360                               |          |              |      |          |      |
| Prep Date:                 | 10/18/2012 |     | Analysis Date: 10/18/2012 |             | SeqNo: 182930                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Surr: Dibromofluoromethane | 50.4       |     | 50.00                     |             | 101                                       | 70       | 130          |      |          |      |
| Surr: Toluene-d8           | 41.1       |     | 50.00                     |             | 82.2                                      | 70       | 130          |      |          |      |

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|                            |            |      |                           |             |                                           |          |              |      |          |      |
|----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-4422   |      | SampType: LCS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS       |      | Batch ID: 4422            |             | RunNo: 6445                               |          |              |      |          |      |
| Prep Date:                 | 10/19/2012 |      | Analysis Date: 10/23/2012 |             | SeqNo: 185414                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2        | 0.20 | 1.670                     | 0           | 74.7                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.6        | 0.50 | 3.330                     | 0           | 76.9                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.5        | 0.20 | 3.330                     | 0           | 75.3                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.3        | 0.20 | 1.670                     | 0           | 78.0                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.3        | 0.50 | 1.670                     | 0           | 79.3                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.4        | 0.20 | 1.670                     | 0           | 83.1                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.4        | 0.25 | 3.330                     | 0           | 73.5                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.1        | 0.40 | 3.330                     | 0           | 61.6                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.4        | 0.20 | 3.330                     | 0           | 72.5                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.3        | 0.20 | 1.670                     | 0           | 77.3                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.5        | 0.20 | 1.670                     | 0           | 91.6                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.4        |      | 3.330                     |             | 103                                       | 21.3     | 145          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6        |      | 1.670                     |             | 95.5                                      | 20       | 131          |      |          |      |
| Surr: 2-Fluorophenol       | 2.8        |      | 3.330                     |             | 83.7                                      | 11.9     | 130          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3        |      | 1.670                     |             | 79.6                                      | 25.1     | 149          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.7        |      | 1.670                     |             | 99.9                                      | 25.6     | 137          |      |          |      |
| Surr: Phenol-d5            | 3.0        |      | 3.330                     |             | 89.0                                      | 20.3     | 132          |      |          |      |

|                             |            |      |                           |             |                                           |          |              |      |          |      |
|-----------------------------|------------|------|---------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | mb-4422    |      | SampType: MBLK            |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                  | PBS        |      | Batch ID: 4422            |             | RunNo: 6445                               |          |              |      |          |      |
| Prep Date:                  | 10/19/2012 |      | Analysis Date: 10/23/2012 |             | SeqNo: 185416                             |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result     | PQL  | SPK value                 | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Acenaphthylene              | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Aniline                     | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Anthracene                  | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Azobenzene                  | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benz(a)anthracene           | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benzo(a)pyrene              | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benzo(b)fluoranthene        | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benzo(g,h,i)perylene        | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benzo(k)fluoranthene        | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Benzoic acid                | ND         | 0.50 |                           |             |                                           |          |              |      |          |      |
| Benzyl alcohol              | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Bis(2-chloroethoxy)methane  | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Bis(2-chloroethyl)ether     | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Bis(2-chloroisopropyl)ether | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND         | 0.50 |                           |             |                                           |          |              |      |          |      |
| 4-Bromophenyl phenyl ether  | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |
| Butyl benzyl phthalate      | ND         | 0.20 |                           |             |                                           |          |              |      |          |      |

### Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                             |            |                |            |             |                                 |          |           |      |          |      |
|-----------------------------|------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | mb-4422    | SampType:      | MBLK       | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                  | PBS        | Batch ID:      | 4422       | RunNo:      | 6445                            |          |           |      |          |      |
| Prep Date:                  | 10/19/2012 | Analysis Date: | 10/23/2012 | SeqNo:      | 185416                          | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result     | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Carbazole                   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chloro-3-methylphenol     | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 4-Chloroaniline             | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2-Chloronaphthalene         | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| 2-Chlorophenol              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Chlorophenyl phenyl ether | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Chrysene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Di-n-butyl phthalate        | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Di-n-octyl phthalate        | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| Dibenz(a,h)anthracene       | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dibenzofuran                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3,3'-Dichlorobenzidine      | ND         | 0.25           |            |             |                                 |          |           |      |          |      |
| Diethyl phthalate           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Dimethyl phthalate          | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2,4-Dichlorophenol          | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dimethylphenol          | ND         | 0.30           |            |             |                                 |          |           |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrophenol           | ND         | 0.40           |            |             |                                 |          |           |      |          |      |
| 2,4-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 2,6-Dinitrotoluene          | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| Fluoranthene                | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Fluorene                    | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorobenzene           | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorobutadiene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachlorocyclopentadiene   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Hexachloroethane            | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Indeno(1,2,3-cd)pyrene      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Isophorone                  | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 1-Methylnaphthalene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Methylnaphthalene         | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Methylphenol              | ND         | 0.50           |            |             |                                 |          |           |      |          |      |
| 3+4-Methylphenol            | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| N-Nitrosodi-n-propylamine   | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| N-Nitrosodiphenylamine      | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| Naphthalene                 | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 2-Nitroaniline              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 3-Nitroaniline              | ND         | 0.20           |            |             |                                 |          |           |      |          |      |
| 4-Nitroaniline              | ND         | 0.40           |            |             |                                 |          |           |      |          |      |

### Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                   |      |                                  |             |      |                                                  |           |                     |          |      |
|----------------------------|-------------------|------|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID                  | <b>mb-4422</b>    |      | SampType: <b>MBLK</b>            |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |           |                     |          |      |
| Client ID:                 | <b>PBS</b>        |      | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |           |                     |          |      |
| Prep Date:                 | <b>10/19/2012</b> |      | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185416</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte                    | Result            | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |
| Nitrobenzene               | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 2-Nitrophenol              | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 4-Nitrophenol              | ND                | 0.25 |                                  |             |      |                                                  |           |                     |          |      |
| Pentachlorophenol          | ND                | 0.40 |                                  |             |      |                                                  |           |                     |          |      |
| Phenanthrene               | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Phenol                     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Pyrene                     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Pyridine                   | ND                | 0.50 |                                  |             |      |                                                  |           |                     |          |      |
| 1,2,4-Trichlorobenzene     | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2,4,5-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| 2,4,6-Trichlorophenol      | ND                | 0.20 |                                  |             |      |                                                  |           |                     |          |      |
| Surr: 2,4,6-Tribromophenol | 3.9               |      | 3.330                            |             | 117  | 21.3                                             | 145       |                     |          |      |
| Surr: 2-Fluorobiphenyl     | 1.6               |      | 1.670                            |             | 98.4 | 20                                               | 131       |                     |          |      |
| Surr: 2-Fluorophenol       | 3.1               |      | 3.330                            |             | 91.6 | 11.9                                             | 130       |                     |          |      |
| Surr: 4-Terphenyl-d14      | 1.5               |      | 1.670                            |             | 91.7 | 25.1                                             | 149       |                     |          |      |
| Surr: Nitrobenzene-d5      | 1.8               |      | 1.670                            |             | 109  | 25.6                                             | 137       |                     |          |      |
| Surr: Phenol-d5            | 3.2               |      | 3.330                            |             | 96.3 | 20.3                                             | 132       |                     |          |      |

|                            |                       |      |                                  |             |      |                                                  |           |                     |          |      |
|----------------------------|-----------------------|------|----------------------------------|-------------|------|--------------------------------------------------|-----------|---------------------|----------|------|
| Sample ID                  | <b>1210858-004Cms</b> |      | SampType: <b>MS</b>              |             |      | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |           |                     |          |      |
| Client ID:                 | <b>BatchQC</b>        |      | Batch ID: <b>4422</b>            |             |      | RunNo: <b>6445</b>                               |           |                     |          |      |
| Prep Date:                 | <b>10/19/2012</b>     |      | Analysis Date: <b>10/23/2012</b> |             |      | SeqNo: <b>185433</b>                             |           | Units: <b>mg/Kg</b> |          |      |
| Analyte                    | Result                | PQL  | SPK value                        | SPK Ref Val | %REC | LowLimit                                         | HighLimit | %RPD                | RPDLimit | Qual |
| Acenaphthene               | 1.2                   | 0.20 | 1.659                            | 0           | 69.3 | 25.6                                             | 142       |                     |          |      |
| 4-Chloro-3-methylphenol    | 2.2                   | 0.50 | 3.309                            | 0           | 67.6 | 63.7                                             | 100       |                     |          |      |
| 2-Chlorophenol             | 2.0                   | 0.20 | 3.309                            | 0           | 61.7 | 22.2                                             | 126       |                     |          |      |
| 1,4-Dichlorobenzene        | 1.1                   | 0.20 | 1.659                            | 0           | 63.6 | 12.4                                             | 115       |                     |          |      |
| 2,4-Dinitrotoluene         | 1.2                   | 0.50 | 1.659                            | 0           | 74.6 | 14.9                                             | 142       |                     |          |      |
| N-Nitrosodi-n-propylamine  | 1.1                   | 0.20 | 1.659                            | 0           | 65.9 | 13.9                                             | 136       |                     |          |      |
| 4-Nitrophenol              | 2.2                   | 0.25 | 3.309                            | 0.09121     | 63.6 | 36.7                                             | 130       |                     |          |      |
| Pentachlorophenol          | 1.9                   | 0.40 | 3.309                            | 0           | 56.5 | 15.8                                             | 113       |                     |          |      |
| Phenol                     | 2.1                   | 0.20 | 3.309                            | 0           | 63.9 | 25.1                                             | 124       |                     |          |      |
| Pyrene                     | 1.1                   | 0.20 | 1.659                            | 0           | 68.6 | 35.8                                             | 124       |                     |          |      |
| 1,2,4-Trichlorobenzene     | 1.3                   | 0.20 | 1.659                            | 0           | 78.0 | 30                                               | 113       |                     |          |      |
| Surr: 2,4,6-Tribromophenol | 3.0                   |      | 3.309                            |             | 90.3 | 21.3                                             | 145       |                     |          |      |
| Surr: 2-Fluorobiphenyl     | 1.5                   |      | 1.659                            |             | 90.0 | 20                                               | 131       |                     |          |      |
| Surr: 2-Fluorophenol       | 2.5                   |      | 3.309                            |             | 74.2 | 11.9                                             | 130       |                     |          |      |
| Surr: 4-Terphenyl-d14      | 1.3                   |      | 1.659                            |             | 80.0 | 25.1                                             | 149       |                     |          |      |
| Surr: Nitrobenzene-d5      | 1.7                   |      | 1.659                            |             | 101  | 25.6                                             | 137       |                     |          |      |
| Surr: Phenol-d5            | 2.8                   |      | 3.309                            |             | 84.0 | 20.3                                             | 132       |                     |          |      |

### Qualifiers:

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ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|                            |                 |                |            |             |                                 |          |           |      |          |      |
|----------------------------|-----------------|----------------|------------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                  | 1210858-004Cmsd | SampType:      | MSD        | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                 | BatchQC         | Batch ID:      | 4422       | RunNo:      | 6445                            |          |           |      |          |      |
| Prep Date:                 | 10/19/2012      | Analysis Date: | 10/23/2012 | SeqNo:      | 185434                          | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2             | 0.20           | 1.681      | 0           | 71.3                            | 25.6     | 142       | 4.05 | 22       |      |
| 4-Chloro-3-methylphenol    | 2.3             | 0.50           | 3.351      | 0           | 69.5                            | 63.7     | 100       | 4.10 | 27.3     |      |
| 2-Chlorophenol             | 2.3             | 0.20           | 3.351      | 0           | 68.2                            | 22.2     | 126       | 11.4 | 26.3     |      |
| 1,4-Dichlorobenzene        | 1.1             | 0.20           | 1.681      | 0           | 63.4                            | 12.4     | 115       | 1.02 | 27.4     |      |
| 2,4-Dinitrotoluene         | 1.3             | 0.50           | 1.681      | 0           | 77.0                            | 14.9     | 142       | 4.43 | 27.4     |      |
| N-Nitrosodi-n-propylamine  | 1.3             | 0.20           | 1.681      | 0           | 75.9                            | 13.9     | 136       | 15.3 | 22.6     |      |
| 4-Nitrophenol              | 2.3             | 0.25           | 3.351      | 0.09121     | 64.9                            | 36.7     | 130       | 3.21 | 20       |      |
| Pentachlorophenol          | 2.0             | 0.40           | 3.351      | 0           | 59.9                            | 15.8     | 113       | 7.18 | 27.1     |      |
| Phenol                     | 2.2             | 0.20           | 3.351      | 0           | 66.5                            | 25.1     | 124       | 5.18 | 32.2     |      |
| Pyrene                     | 1.2             | 0.20           | 1.681      | 0           | 70.8                            | 35.8     | 124       | 4.36 | 29.5     |      |
| 1,2,4-Trichlorobenzene     | 1.4             | 0.20           | 1.681      | 0           | 80.5                            | 30       | 113       | 4.34 | 27.8     |      |
| Surr: 2,4,6-Tribromophenol | 3.1             |                | 3.351      |             | 93.6                            | 21.3     | 145       | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 1.5             |                | 1.681      |             | 91.0                            | 20       | 131       | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 2.5             |                | 3.351      |             | 75.3                            | 11.9     | 130       | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 1.4             |                | 1.681      |             | 81.4                            | 25.1     | 149       | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 1.6             |                | 1.681      |             | 96.9                            | 25.6     | 137       | 0    | 0        |      |
| Surr: Phenol-d5            | 2.9             |                | 3.351      |             | 85.9                            | 20.3     | 132       | 0    | 0        |      |

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ND Not Detected at the Reporting Limit  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |             |                          |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4426    | SampType:      | MBLK       | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4426       | RunNo:      | 6443                     |          |           |      |          |      |
| Prep Date: | 10/19/2012 | Analysis Date: | 10/23/2012 | SeqNo:      | 185363                   | Units:   | mg/kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND         | 0.033          |            |             |                          |          |           |      |          |      |

|            |            |                |            |             |                          |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4426   | SampType:      | LCS        | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4426       | RunNo:      | 6443                     |          |           |      |          |      |
| Prep Date: | 10/19/2012 | Analysis Date: | 10/23/2012 | SeqNo:      | 185364                   | Units:   | mg/kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.17       | 0.033          | 0.1667     | 0           | 101                      | 80       | 120       |      |          |      |

|            |                    |                |            |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210859-002CMS     | SampType:      | MS         | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | SWMU 1-39 (0-0.5') | Batch ID:      | 4426       | RunNo:      | 6443                     |          |           |      |          |      |
| Prep Date: | 10/19/2012         | Analysis Date: | 10/23/2012 | SeqNo:      | 185391                   | Units:   | mg/kg     |      |          |      |
| Analyte    | Result             | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.18               | 0.033          | 0.1654     | 0.01134     | 102                      | 75       | 125       |      |          |      |

|            |                    |                |            |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210859-002CMSD    | SampType:      | MSD        | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | SWMU 1-39 (0-0.5') | Batch ID:      | 4426       | RunNo:      | 6443                     |          |           |      |          |      |
| Prep Date: | 10/19/2012         | Analysis Date: | 10/23/2012 | SeqNo:      | 185392                   | Units:   | mg/kg     |      |          |      |
| Analyte    | Result             | PQL            | SPK value  | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.18               | 0.033          | 0.1685     | 0.01134     | 99.0                     | 75       | 125       | 1.06 | 20       |      |

|            |           |                |           |             |                          |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4629   | SampType:      | MBLK      | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | PBS       | Batch ID:      | 4629      | RunNo:      | 6634                     |          |           |      |          |      |
| Prep Date: | 11/1/2012 | Analysis Date: | 11/1/2012 | SeqNo:      | 191517                   | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | ND        | 0.033          |           |             |                          |          |           |      |          |      |

|            |           |                |           |             |                          |          |           |      |          |      |
|------------|-----------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4629  | SampType:      | LCS       | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | LCSS      | Batch ID:      | 4629      | RunNo:      | 6634                     |          |           |      |          |      |
| Prep Date: | 11/1/2012 | Analysis Date: | 11/1/2012 | SeqNo:      | 191518                   | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result    | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.17      | 0.033          | 0.1667    | 0           | 101                      | 80       | 120       |      |          |      |

|            |                    |                |           |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210859-003CMS     | SampType:      | MS        | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | SWMU 1-25 (0-0.5') | Batch ID:      | 4629      | RunNo:      | 6634                     |          |           |      |          |      |
| Prep Date: | 11/1/2012          | Analysis Date: | 11/1/2012 | SeqNo:      | 191520                   | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result             | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.19               | 0.033          | 0.1609    | 0.02890     | 103                      | 75       | 125       |      |          |      |

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                    |                |           |             |                          |          |           |      |          |      |
|------------|--------------------|----------------|-----------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210859-003CMSD    | SampType:      | MSD       | TestCode:   | EPA Method 7471: Mercury |          |           |      |          |      |
| Client ID: | SWMU 1-25 (0-0.5') | Batch ID:      | 4629      | RunNo:      | 6634                     |          |           |      |          |      |
| Prep Date: | 11/1/2012          | Analysis Date: | 11/1/2012 | SeqNo:      | 191521                   | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result             | PQL            | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury    | 0.22               | 0.033          | 0.1651    | 0.02890     | 113                      | 75       | 125       | 10.5 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | MB-4441    | SampType:      | MBLK       | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | PBS        | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186822                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Arsenic   | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Barium    | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Beryllium | ND     | 0.15 |           |             |      |          |           |      |          |      |
| Cadmium   | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Chromium  | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Cobalt    | ND     | 0.30 |           |             |      |          |           |      |          |      |
| Iron      | ND     | 1.0  |           |             |      |          |           |      |          |      |
| Lead      | ND     | 0.25 |           |             |      |          |           |      |          |      |
| Manganese | ND     | 0.10 |           |             |      |          |           |      |          |      |
| Nickel    | ND     | 0.50 |           |             |      |          |           |      |          |      |
| Selenium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Vanadium  | ND     | 2.5  |           |             |      |          |           |      |          |      |
| Zinc      | ND     | 2.5  |           |             |      |          |           |      |          |      |

|            |            |                |            |           |                               |        |       |  |  |  |
|------------|------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | LCS-4441   | SampType:      | LCS        | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | LCSS       | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/25/2012 | SeqNo:    | 186823                        | Units: | mg/Kg |  |  |  |

| Analyte   | Result | PQL  | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|-----------|--------|------|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony  | 23     | 2.5  | 25.00     | 0           | 92.2 | 80       | 120       |      |          |      |
| Arsenic   | 23     | 2.5  | 25.00     | 0           | 93.7 | 80       | 120       |      |          |      |
| Barium    | 23     | 0.10 | 25.00     | 0           | 92.2 | 80       | 120       |      |          |      |
| Beryllium | 24     | 0.15 | 25.00     | 0           | 95.1 | 80       | 120       |      |          |      |
| Cadmium   | 23     | 0.10 | 25.00     | 0           | 92.8 | 80       | 120       |      |          |      |
| Chromium  | 23     | 0.30 | 25.00     | 0           | 91.8 | 80       | 120       |      |          |      |
| Cobalt    | 22     | 0.30 | 25.00     | 0           | 88.9 | 80       | 120       |      |          |      |
| Iron      | 23     | 1.0  | 25.00     | 0           | 93.7 | 80       | 120       |      |          |      |
| Lead      | 23     | 0.25 | 25.00     | 0           | 91.3 | 80       | 120       |      |          |      |
| Manganese | 23     | 0.10 | 25.00     | 0.04450     | 90.3 | 80       | 120       |      |          |      |
| Nickel    | 22     | 0.50 | 25.00     | 0           | 87.6 | 80       | 120       |      |          |      |
| Selenium  | 22     | 2.5  | 25.00     | 0           | 87.2 | 80       | 120       |      |          |      |
| Vanadium  | 24     | 2.5  | 25.00     | 0           | 95.4 | 80       | 120       |      |          |      |
| Zinc      | 23     | 2.5  | 25.00     | 0           | 90.7 | 80       | 120       |      |          |      |

|            |                |                |            |           |                               |        |       |  |  |  |
|------------|----------------|----------------|------------|-----------|-------------------------------|--------|-------|--|--|--|
| Sample ID  | 1210656-001CMS | SampType:      | MS         | TestCode: | EPA Method 6010B: Soil Metals |        |       |  |  |  |
| Client ID: | BatchQC        | Batch ID:      | 4441       | RunNo:    | 6493                          |        |       |  |  |  |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:    | 186932                        | Units: | mg/Kg |  |  |  |

| Analyte  | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|----------|--------|-----|-----------|-------------|------|----------|-----------|------|----------|------|
| Antimony | 5.2    | 5.0 | 24.67     | 0           | 20.9 | 75       | 125       |      |          | S    |
| Arsenic  | 23     | 5.0 | 24.67     | 2.167       | 85.1 | 75       | 125       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210656-001CMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4441       | RunNo:      | 6493                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/25/2012 | SeqNo:      | 186932                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Beryllium  | 21             | 0.30           | 24.67      | 0.6108      | 83.1                          | 75       | 125       |      |          |      |
| Cadmium    | 19             | 0.20           | 24.67      | 0           | 78.2                          | 75       | 125       |      |          |      |
| Chromium   | 31             | 0.60           | 24.67      | 9.563       | 87.0                          | 75       | 125       |      |          |      |
| Cobalt     | 21             | 0.60           | 24.67      | 3.401       | 71.6                          | 75       | 125       |      |          | S    |
| Lead       | 22             | 0.50           | 24.67      | 4.192       | 72.5                          | 75       | 125       |      |          | S    |
| Nickel     | 24             | 1.0            | 24.67      | 5.943       | 73.5                          | 75       | 125       |      |          | S    |
| Selenium   | 11             | 5.0            | 24.67      | 0           | 43.9                          | 75       | 125       |      |          | S    |
| Vanadium   | 41             | 5.0            | 24.67      | 17.94       | 92.0                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |        |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|--------|----------|------|
| Sample ID  | 1210656-001CMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |        |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4441       | RunNo:      | 6493                          |          |           |        |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/25/2012 | SeqNo:      | 186933                        | Units:   | mg/Kg     |        |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD   | RPDLimit | Qual |
| Antimony   | ND              | 5.0            | 24.23      | 0           | 20.3                          | 75       | 125       | 200    | 20       | S    |
| Arsenic    | 23              | 5.0            | 24.23      | 2.167       | 87.5                          | 75       | 125       | 0.929  | 20       |      |
| Beryllium  | 21              | 0.30           | 24.23      | 0.6108      | 85.4                          | 75       | 125       | 0.909  | 20       |      |
| Cadmium    | 20              | 0.20           | 24.23      | 0           | 82.3                          | 75       | 125       | 3.30   | 20       |      |
| Chromium   | 30              | 0.60           | 24.23      | 9.563       | 83.1                          | 75       | 125       | 4.37   | 20       |      |
| Cobalt     | 21              | 0.60           | 24.23      | 3.401       | 72.9                          | 75       | 125       | 0.0820 | 20       | S    |
| Lead       | 21              | 0.50           | 24.23      | 4.192       | 70.5                          | 75       | 125       | 3.76   | 20       | S    |
| Nickel     | 24              | 1.0            | 24.23      | 5.943       | 75.3                          | 75       | 125       | 0.450  | 20       |      |
| Selenium   | 13              | 5.0            | 24.23      | 0           | 54.1                          | 75       | 125       | 19.1   | 20       | S    |
| Vanadium   | 39              | 5.0            | 24.23      | 17.94       | 88.1                          | 75       | 125       | 3.41   | 20       |      |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | MB-4441    | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | PBS        | Batch ID:      | 4441       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188994                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | ND         | 0.25           |            |             |                               |          |           |      |          |      |

|            |            |                |            |             |                               |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | LCS-4441   | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | LCSS       | Batch ID:      | 4441       | RunNo:      | 6546                          |          |           |      |          |      |
| Prep Date: | 10/22/2012 | Analysis Date: | 10/29/2012 | SeqNo:      | 188995                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 5.3        | 0.25           | 5.000      | 0           | 106                           | 80       | 120       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210859

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

|            |                |                |            |             |                               |          |           |      |          |      |
|------------|----------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1210656-001CMS | SampType:      | MS         | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC        | Batch ID:      | 4441       | RunNo:      | 6598                          |          |           |      |          |      |
| Prep Date: | 10/22/2012     | Analysis Date: | 10/31/2012 | SeqNo:      | 190745                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result         | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Silver     | 4.2            | 0.50           | 4.935      | 0           | 86.1                          | 75       | 125       |      |          |      |

|            |                 |                |            |             |                               |          |           |       |          |      |
|------------|-----------------|----------------|------------|-------------|-------------------------------|----------|-----------|-------|----------|------|
| Sample ID  | 1210656-001CMSD | SampType:      | MSD        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |       |          |      |
| Client ID: | BatchQC         | Batch ID:      | 4441       | RunNo:      | 6598                          |          |           |       |          |      |
| Prep Date: | 10/22/2012      | Analysis Date: | 10/31/2012 | SeqNo:      | 190746                        | Units:   | mg/Kg     |       |          |      |
| Analyte    | Result          | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD  | RPDLimit | Qual |
| Silver     | 4.2             | 0.50           | 4.847      | 0           | 87.1                          | 75       | 125       | 0.553 | 20       |      |

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

## Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1210859

Received by/date: LM 10/18/12

Logged By: Michelle Garcia 10/18/2012 8:00:00 AM

*Michelle Garcia*

Completed By: Michelle Garcia 10/18/2012 9:07:38 AM

*Michelle Garcia*

Reviewed By: *[Signature]* 10/18/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
(<2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

|                      |       |       |                                                                                                                               |
|----------------------|-------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | _____ | Date: | _____                                                                                                                         |
| By Whom:             | _____ | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | _____ |       |                                                                                                                               |
| Client Instructions: | _____ |       |                                                                                                                               |

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0     | Good      | Yes         |         |           |           |

## Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: ROUTE 3 BOX

GALLUP, NM 87301

Phone #: 505-722-0217email or Fax#: SCOTT CROUCH-RPS

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☒ EDD (Type) EXCEL

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

SWMU No. 1

Project #:

Project Manager:

SCOTT CROUCH-RPSSampler: TRACY PAYNE-RPSOn Ice: ☒ Yes ☐ NoSample Temperature: 10

Container Type and #

Preservative Type

HEAL No.

1210859-0012 VIALSSOBIMEOH3 TARS-2 VIALSSOBIMEOH3 TARS-2 VIALSSOBIMEOH3 TARS-2 VIALSSOBIMEOH3 TARS-2 VIALSSOBIMEOH3 TARS-Relinquished by: AT 7

Relinquished by:

Date: 10-17-12Time: 0725

Received by:

Date: 10/18/17Time: 0800

Date

Time

Remarks:

## Analysis Request

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCB's

8260B (VOA) + TPH GRO

8270 (Semi-VOA)

TPH MRO &amp; DRO

METALS

Air Bubbles (Y or N)

OFFICE

Project #: SWMU No. 1

Phone #: 505-722-0217

email or Fax#: SCOTT CROUCH-RPS

☒ Standard ☐ Level 4 (Full Validation)

☐ NELAP      ☐ Other

|                                     |            |     |
|-------------------------------------|------------|-----|
| <input checked="" type="checkbox"/> | EDD (Type) | FXC |
|-------------------------------------|------------|-----|

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|       |                  |
|-------|------------------|
| (440) | SWMU 1-29(0-0.5) |
|-------|------------------|

|            |       |                  |
|------------|-------|------------------|
| Date:      | Time: | Relinquished by: |
| 07/26/2007 | 07:26 | [Signature]      |

Relinquished by:

If necessary, samples submitted to Hall Environmental may be subco

SCOTT CROUCH - RPS

Sample Temperature: 70

| Container<br>Type and # | Preservative<br>Type |
|-------------------------|----------------------|
|-------------------------|----------------------|

|       |   |
|-------|---|
| STARS | — |
|-------|---|

|          |      |
|----------|------|
| ANALYSIS | MEOH |
|----------|------|

12

5

ected to other accredited laboratories. The

Remarks:

Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

10/18/12 0800

Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

SWMU 14 SOILS  
METALS J-FLAGGED RESULTS

## Analytical Report

Lab Order: 1207748

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** SWMU 14-1 (0-0.5)**Project:** SWMU NO.14**Collection Date:** 7/16/2012 4:15:00 PM**Lab ID:** 1207748-001C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 2.5   | 12   |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |
| Arsenic                              | ND     | 0.77  | 12   |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM | 2958     |
| Barium                               | 790    | 0.53  | 2.0  |      | mg/Kg | 20  | 7/25/2012 5:52:08 PM | 2958     |
| Beryllium                            | 0.61   | 0.047 | 0.75 | J    | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |
| Cadmium                              | ND     | 0.11  | 0.50 |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM | 2958     |
| Chromium                             | 6.8    | 0.24  | 1.5  |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM | 2958     |
| Cobalt                               | 5.4    | 0.33  | 1.5  |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |
| Iron                                 | 9000   | 430   | 500  |      | mg/Kg | 500 | 7/31/2012 6:15:57 PM | 2958     |
| Lead                                 | 3.6    | 0.98  | 1.2  |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM | 2958     |
| Manganese                            | 570    | 6.4   | 2.0  |      | mg/Kg | 20  | 7/30/2012 7:33:13 PM | 2958     |
| Nickel                               | 6.1    | 0.13  | 2.5  |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |
| Selenium                             | ND     | 1.9   | 12   |      | mg/Kg | 5   | 7/30/2012 7:30:35 PM | 2958     |
| Silver                               | ND     | 0.068 | 1.2  |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM | 2958     |
| Vanadium                             | 17     | 0.10  | 12   |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |
| Zinc                                 | 21     | 1.9   | 12   |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM | 2958     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207748

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Southwest, Gallup  
**Project:** SWMU NO.14  
**Lab ID:** 1207748-002C

**Client Sample ID:** SWMU 14-1 (1.5-2)  
**Collection Date:** 7/16/2012 4:20:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                      |          |
| Antimony                             | ND     | 2.5   | 12   |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |
| Arsenic                              | ND     | 0.77  | 12   |      | mg/Kg | 5            | 7/25/2012 5:42:55 PM | 2958     |
| Barium                               | 550    | 0.53  | 2.0  |      | mg/Kg | 20           | 7/25/2012 5:54:25 PM | 2958     |
| Beryllium                            | 0.89   | 0.047 | 0.75 |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |
| Cadmium                              | ND     | 0.11  | 0.50 |      | mg/Kg | 5            | 7/25/2012 5:42:55 PM | 2958     |
| Chromium                             | 11     | 0.24  | 1.5  |      | mg/Kg | 5            | 7/25/2012 5:42:55 PM | 2958     |
| Cobalt                               | 5.1    | 0.33  | 1.5  |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |
| Iron                                 | 17000  | 430   | 500  |      | mg/Kg | 500          | 7/31/2012 6:23:35 PM | 2958     |
| Lead                                 | 4.6    | 0.98  | 1.2  |      | mg/Kg | 5            | 7/25/2012 5:42:55 PM | 2958     |
| Manganese                            | 510    | 6.4   | 2.0  |      | mg/Kg | 20           | 7/30/2012 7:40:43 PM | 2958     |
| Nickel                               | 8.3    | 0.13  | 2.5  |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |
| Selenium                             | ND     | 7.8   | 50   |      | mg/Kg | 20           | 7/30/2012 7:40:43 PM | 2958     |
| Silver                               | ND     | 0.068 | 1.2  |      | mg/Kg | 5            | 7/25/2012 5:42:55 PM | 2958     |
| Vanadium                             | 26     | 0.10  | 12   |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |
| Zinc                                 | 21     | 1.9   | 12   |      | mg/Kg | 5            | 7/26/2012 8:33:08 PM | 2958     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

## Analytical Report

Lab Order: 1207748

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-1 (10-12)

Project: SWMU NO.14

Collection Date: 7/16/2012 4:30:00 PM

Lab ID: 1207748-003C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                      | ND     | 2.5   | 12   |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |
| Arsenic                       | ND     | 0.77  | 12   |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM | 2958     |
| Barium                        | 1100   | 1.3   | 5.0  |      | mg/Kg | 50  | 7/25/2012 5:56:42 PM | 2958     |
| Beryllium                     | 0.69   | 0.047 | 0.75 | J    | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |
| Cadmium                       | ND     | 0.11  | 0.50 |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM | 2958     |
| Chromium                      | 11     | 0.24  | 1.5  |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM | 2958     |
| Cobalt                        | 5.0    | 0.33  | 1.5  |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |
| Iron                          | 14000  | 430   | 500  |      | mg/Kg | 500 | 7/31/2012 6:26:11 PM | 2958     |
| Lead                          | 2.5    | 0.98  | 1.2  |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM | 2958     |
| Manganese                     | 590    | 6.4   | 2.0  |      | mg/Kg | 20  | 7/30/2012 7:56:33 PM | 2958     |
| Nickel                        | 7.6    | 0.13  | 2.5  |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |
| Selenium                      | ND     | 1.9   | 12   |      | mg/Kg | 5   | 7/30/2012 7:53:56 PM | 2958     |
| Silver                        | ND     | 0.068 | 1.2  |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM | 2958     |
| Vanadium                      | 24     | 0.10  | 12   |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |
| Zinc                          | 20     | 1.9   | 12   |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM | 2958     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|             |    |                                                       |    |                                                 |

## Analytical Report

Lab Order: 1207900

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-3 (0-0.5')

Project: SWMU NO.14

Collection Date: 7/18/2012 11:25:00 AM

Lab ID: 1207900-001C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                      | 4.8    | 3.1   | 12   | J    | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Barium                        | 920    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:13:35 AM | 3009     |
| Beryllium                     | 0.77   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Chromium                      | 11     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Cobalt                        | 5.1    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Iron                          | 13000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:16:02 AM | 3009     |
| Lead                          | 2.7    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Manganese                     | 600    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:13:35 AM | 3009     |
| Nickel                        | 8.0    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Vanadium                      | 23     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |
| Zinc                          | 42     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207900

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207900-002C

**Client Sample ID:** SWMU 14-3 (1.5-2')  
**Collection Date:** 7/18/2012 12:00:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL    | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|--------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |        |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 0.63   | 2.5  |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Arsenic                              | ND     | 3.1    | 12   |      | mg/Kg | 5   | 8/5/2012 5:38:48 PM  | 3009     |
| Barium                               | 560    | 1.2    | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:18:46 AM | 3009     |
| Beryllium                            | 0.65   | 0.0093 | 0.15 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Cadmium                              | ND     | 0.027  | 0.10 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Chromium                             | 19     | 0.12   | 0.30 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Cobalt                               | 3.6    | 0.069  | 0.30 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Iron                                 | 11000  | 370    | 500  |      | mg/Kg | 500 | 8/8/2012 10:21:13 AM | 3009     |
| Lead                                 | 1.7    | 0.22   | 0.25 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Manganese                            | 400    | 0.42   | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:18:46 AM | 3009     |
| Nickel                               | 6.0    | 0.17   | 0.50 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Selenium                             | ND     | 1.4    | 2.5  |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Silver                               | ND     | 0.035  | 0.25 |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Vanadium                             | 18     | 0.056  | 2.5  |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  | 3009     |
| Zinc                                 | 42     | 5.0    | 12   |      | mg/Kg | 5   | 8/5/2012 5:38:48 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

## Analytical Report

Lab Order: 1207900

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207900-003C

**Client Sample ID:** SWMU 14-3 (8-10')  
**Collection Date:** 7/18/2012 12:15:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Barium                               | 380    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:23:59 AM | 3009     |
| Beryllium                            | 0.80   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Chromium                             | 100    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Cobalt                               | 5.6    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:26:26 AM | 3009     |
| Lead                                 | 11     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Manganese                            | 350    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:23:59 AM | 3009     |
| Nickel                               | 9.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Vanadium                             | 29     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |
| Zinc                                 | 67     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207900

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Project: SWMU NO.14

Lab ID: 1207900-004C

Client Sample ID: SWMU 14-3 (12-14')

Collection Date: 7/18/2012 12:30:00 PM

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Barium                        | 350    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:39:57 AM | 3009     |
| Beryllium                     | 0.67   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Chromium                      | 110    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Cobalt                        | 4.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Iron                          | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:42:25 AM | 3009     |
| Lead                          | 12     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Manganese                     | 570    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:39:57 AM | 3009     |
| Nickel                        | 8.5    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Vanadium                      | 31     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |
| Zinc                          | 65     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|             |    |                                                       |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207900-005C

**Client Sample ID:** SWMU 14-3 (25.5-26')  
**Collection Date:** 7/18/2012 12:45:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Barium                               | 630    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:45:10 AM | 3009     |
| Beryllium                            | 1.1    | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Chromium                             | 17     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Cobalt                               | 10     | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Iron                                 | 21000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:47:34 AM | 3009     |
| Lead                                 | ND     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Manganese                            | 1400   | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:45:10 AM | 3009     |
| Nickel                               | 17     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Vanadium                             | 24     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |
| Zinc                                 | 34     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207900

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207900-006C

**Client Sample ID:** SWMU 14-1 (48-50')  
**Collection Date:** 7/18/2012 1:45:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Barium                               | 750    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:50:18 AM | 3009     |
| Beryllium                            | 1.4    | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Chromium                             | 20     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Cobalt                               | 6.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Iron                                 | 23000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:52:45 AM | 3009     |
| Lead                                 | 2.0    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Manganese                            | 720    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:50:18 AM | 3009     |
| Nickel                               | 16     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Vanadium                             | 9.8    | 0.28  | 12   | J    | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |
| Zinc                                 | 23     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207917

**Hall Environmental Analysis Laboratory, Inc.**

Date Reported: 8/30/2012

**CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-4 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/17/2012 1:18:00 PM**Lab ID:** 1207917-001C**Matrix:** Soil

| Analyses                             | Result | MDL    | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|--------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |        |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 0.63   | 2.5  |      | mg/Kg | 1   | 8/9/2012 5:34:54 AM  | 3009     |
| Arsenic                              | ND     | 3.1    | 12   |      | mg/Kg | 5   | 8/5/2012 5:54:51 PM  | 3009     |
| Barium                               | 870    | 1.2    | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:55:27 AM | 3009     |
| Beryllium                            | 0.33   | 0.0093 | 0.15 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Cadmium                              | ND     | 0.027  | 0.10 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Chromium                             | 3.4    | 0.12   | 0.30 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Cobalt                               | 2.5    | 0.069  | 0.30 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Iron                                 | 3200   | 75     | 100  |      | mg/Kg | 100 | 8/8/2012 10:57:55 AM | 3009     |
| Lead                                 | ND     | 0.22   | 0.25 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Manganese                            | 320    | 0.42   | 2.0  |      | mg/Kg | 20  | 8/8/2012 10:55:27 AM | 3009     |
| Nickel                               | 3.1    | 0.17   | 0.50 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Selenium                             | ND     | 1.4    | 2.5  |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Silver                               | ND     | 0.035  | 0.25 |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Vanadium                             | 17     | 0.056  | 2.5  |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |
| Zinc                                 | 8.3    | 1.0    | 2.5  |      | mg/Kg | 1   | 8/5/2012 7:25:13 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207917

Date Reported: 8/30/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207917-002C

**Client Sample ID:** SWMU 14-4 (1.5-2.0')  
**Collection Date:** 7/17/2012 1:30:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL    | RL   | Qual | Units | DF           | Date Analyzed        | Batch ID |
|--------------------------------------|--------|--------|------|------|-------|--------------|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |        |      |      |       | Analyst: JLF |                      |          |
| Antimony                             | ND     | 0.63   | 2.5  |      | mg/Kg | 1            | 8/9/2012 5:37:28 AM  | 3009     |
| Arsenic                              | ND     | 3.1    | 12   |      | mg/Kg | 5            | 8/5/2012 6:05:34 PM  | 3009     |
| Barium                               | 870    | 1.2    | 2.0  |      | mg/Kg | 20           | 8/8/2012 11:00:44 AM | 3009     |
| Beryllium                            | 0.51   | 0.0093 | 0.15 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Cadmium                              | ND     | 0.027  | 0.10 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Chromium                             | 5.2    | 0.12   | 0.30 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Cobalt                               | 2.7    | 0.069  | 0.30 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Iron                                 | 7500   | 370    | 500  |      | mg/Kg | 500          | 8/8/2012 11:04:52 AM | 3009     |
| Lead                                 | 0.37   | 0.22   | 0.25 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Manganese                            | 340    | 0.42   | 2.0  |      | mg/Kg | 20           | 8/8/2012 11:00:44 AM | 3009     |
| Nickel                               | 4.4    | 0.17   | 0.50 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Selenium                             | ND     | 1.4    | 2.5  |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Silver                               | ND     | 0.035  | 0.25 |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Vanadium                             | 13     | 0.056  | 2.5  |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |
| Zinc                                 | 10     | 1.0    | 2.5  |      | mg/Kg | 1            | 8/5/2012 7:27:43 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207917

Date Reported: 8/30/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207917-003C

**Client Sample ID:** SWMU 14-4 (10-12')**Collection Date:** 7/17/2012 2:00:00 PM**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Barium                               | 460    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/8/2012 11:18:39 AM | 3009     |
| Beryllium                            | 0.86   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Cobalt                               | 5.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 11:21:06 AM | 3009     |
| Lead                                 | 2.4    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Manganese                            | 720    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/8/2012 11:18:39 AM | 3009     |
| Nickel                               | 8.6    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 6:07:55 PM  | 3009     |
| Zinc                                 | 22     | 5.0   | 12   |      | mg/Kg | 5   | 8/10/2012 5:27:11 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

# Analytical Report

Lab Order: 1207917

Date Reported: 8/30/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-4 (19.5-20')

Project: SWMU NO.14

Collection Date: 7/17/2012 2:15:00 PM

Lab ID: 1207917-004C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Barium                        | 480    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 11:23:48 AM | 3009     |
| Beryllium                     | 1.3    | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Chromium                      | 22     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Cobalt                        | 8.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Iron                          | 23000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 11:26:15 AM | 3009     |
| Lead                          | 1.4    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Manganese                     | 1000   | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 11:23:48 AM | 3009     |
| Nickel                        | 17     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Vanadium                      | 15     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 6:10:19 PM  | 3009     |
| Zinc                          | 25     | 5.0   | 12   |      | mg/Kg | 5   | 8/10/2012 5:31:16 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|             |    |                                                       |    | Page 4 of 0                                     |

**Analytical Report**

Lab Order: **1207917**

Date Reported: **8/30/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207917-005C

**Client Sample ID:** SWMU 14-2 (0-0.5')  
**Collection Date:** 7/17/2012 4:10:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 4.0    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 5:33:46 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Barium                               | 700    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/8/2012 11:28:59 AM | 3009     |
| Beryllium                            | 0.68   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Chromium                             | 8.8    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Cobalt                               | 4.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 11:31:24 AM | 3009     |
| Lead                                 | 3.3    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Manganese                            | 510    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/8/2012 11:28:59 AM | 3009     |
| Nickel                               | 6.2    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/8/2012 11:55:49 AM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 6:12:43 PM  | 3009     |
| Vanadium                             | 31     | 0.28  | 12   |      | mg/Kg | 5   | 8/8/2012 11:55:49 AM | 3009     |
| Zinc                                 | 17     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 5:33:46 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

## Analytical Report

Lab Order: 1207917

Date Reported: 8/30/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207917-006C

**Client Sample ID:** SWMU 14-2 (1.5-2.0')  
**Collection Date:** 7/17/2012 4:24:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 3.6    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Barium                               | 470    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:04:10 PM | 3107     |
| Beryllium                            | 0.76   | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Cobalt                               | 3.8    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Iron                                 | 11000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 6:06:36 PM | 3107     |
| Lead                                 | 4.4    | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Manganese                            | 530    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:04:10 PM | 3107     |
| Nickel                               | 7.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Vanadium                             | 21     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |
| Zinc                                 | 35     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 5:43:48 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207917

Date Reported: 8/30/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-2 (8-10')**Project:** SWMU NO.14**Collection Date:** 7/17/2012 4:45:00 PM**Lab ID:** 1207917-007C**Matrix:** Soil

| Analyses                             | Result | MDL    | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|--------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |        |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 0.82   | 0.63   | 2.5  | J    | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Arsenic                              | 1.6    | 0.63   | 2.5  | J    | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Barium                               | 400    | 3.0    | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:11:40 PM | 3107     |
| Beryllium                            | 0.58   | 0.0093 | 0.15 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Cadmium                              | ND     | 0.027  | 0.10 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Chromium                             | 76     | 0.59   | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:09:14 PM | 3107     |
| Cobalt                               | 3.7    | 0.069  | 0.30 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Iron                                 | 14000  | 370    | 500  |      | mg/Kg | 500 | 8/10/2012 6:14:05 PM | 3107     |
| Lead                                 | 4.6    | 0.22   | 0.25 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Manganese                            | 400    | 1.1    | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:11:40 PM | 3107     |
| Nickel                               | 6.6    | 0.17   | 0.50 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Selenium                             | ND     | 1.4    | 2.5  |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Silver                               | ND     | 0.035  | 0.25 |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Vanadium                             | 20     | 0.057  | 2.5  |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |
| Zinc                                 | 37     | 1.0    | 2.5  |      | mg/Kg | 1   | 8/10/2012 8:35:35 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207917

Date Reported: 8/30/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Project:** SWMU NO.14**Lab ID:** 1207917-009C**Client Sample ID:** SWMU 14-2 (16-18')**Collection Date:** 7/17/2012 5:10:00 PM**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF   | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|------|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |      | Analyst: ELS         |          |
| Antimony                             | 4.7    | 3.1   | 13   | J    | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Barium                               | 520    | 3.0   | 5.0  |      | mg/Kg | 50   | 8/10/2012 6:36:56 PM | 3107     |
| Beryllium                            | 1.3    | 0.047 | 0.75 |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Chromium                             | 18     | 0.59  | 1.5  |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Cobalt                               | 7.2    | 0.34  | 1.5  |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Iron                                 | 26000  | 750   | 1000 |      | mg/Kg | 1000 | 8/15/2012 7:08:47 AM | 3107     |
| Lead                                 | 1.2    | 1.1   | 1.3  | J    | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Manganese                            | 1100   | 1.1   | 5.0  |      | mg/Kg | 50   | 8/10/2012 6:36:56 PM | 3107     |
| Nickel                               | 16     | 0.83  | 2.5  |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Vanadium                             | 22     | 0.28  | 13   |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |
| Zinc                                 | 26     | 5.0   | 13   |      | mg/Kg | 5    | 8/10/2012 6:32:52 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207917

Date Reported: 8/30/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207917-010C

**Client Sample ID:** SWMU 14-2 (24-25')  
**Collection Date:** 7/17/2012 5:30:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 3.3    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Barium                               | 460    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:44:11 PM | 3107     |
| Beryllium                            | 1.1    | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Chromium                             | 18     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Cobalt                               | 9.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Iron                                 | 19000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 6:46:36 PM | 3107     |
| Lead                                 | ND     | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Manganese                            | 980    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:44:11 PM | 3107     |
| Nickel                               | 17     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Vanadium                             | 52     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |
| Zinc                                 | 31     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 6:41:43 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-001C

**Client Sample ID:** SMWU 14-9 (0-0.5')  
**Collection Date:** 7/18/2012 4:20:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Barium                               | 480    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:52:46 PM | 3107     |
| Beryllium                            | 0.58   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Chromium                             | 13     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Cobalt                               | 3.8    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 6:55:13 PM | 3107     |
| Lead                                 | 5.5    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Manganese                            | 1800   | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 6:52:46 PM | 3107     |
| Nickel                               | 6.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Vanadium                             | 18     | 0.28  | 12   |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |
| Zinc                                 | 44     | 5.0   | 12   |      | mg/Kg | 5   | 8/10/2012 6:49:12 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-002C

**Client Sample ID:** SMWU 14-9 (0-0.5') Dup  
**Collection Date:** 7/18/2012 4:20:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Barium                               | 490    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:10:33 PM | 3107     |
| Beryllium                            | 1.0    | 0.046 | 0.75 |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Chromium                             | 22     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Cobalt                               | 5.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Iron                                 | 18000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 7:12:57 PM | 3107     |
| Lead                                 | 40     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Manganese                            | 460    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:10:33 PM | 3107     |
| Nickel                               | 11     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Vanadium                             | 29     | 0.28  | 12   |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |
| Zinc                                 | 57     | 5.0   | 12   |      | mg/Kg | 5   | 8/10/2012 6:57:51 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-003C

**Client Sample ID:** SMWU 14-9 (1.5-2')  
**Collection Date:** 7/18/2012 4:30:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Barium                               | 500    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:17:59 PM | 3107     |
| Beryllium                            | 0.52   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Chromium                             | 10     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Cobalt                               | 3.1    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Iron                                 | 8800   | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 7:20:23 PM | 3107     |
| Lead                                 | 1.9    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Manganese                            | 930    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:17:59 PM | 3107     |
| Nickel                               | 5.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Vanadium                             | 19     | 0.28  | 12   |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |
| Zinc                                 | 28     | 5.0   | 12   |      | mg/Kg | 5   | 8/10/2012 7:15:32 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207922

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/29/2012

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-004C

**Client Sample ID:** SMWU 14-9 (4-6')  
**Collection Date:** 7/18/2012 4:40:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: ELS |                      |          |
| Antimony                             | ND     | 3.1   | 13   |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Barium                               | 200    | 0.30  | 0.50 |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Beryllium                            | 1.1    | 0.047 | 0.75 |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Cobalt                               | 4.9    | 0.34  | 1.5  |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500          | 8/10/2012 7:27:49 PM | 3107     |
| Lead                                 | 2.4    | 1.1   | 1.3  |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Manganese                            | 280    | 1.1   | 5.0  |      | mg/Kg | 50           | 8/10/2012 7:25:24 PM | 3107     |
| Nickel                               | 8.5    | 0.83  | 2.5  |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Vanadium                             | 20     | 0.28  | 13   |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |
| Zinc                                 | 17     | 5.0   | 13   |      | mg/Kg | 5            | 8/10/2012 7:22:58 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-005C

**Client Sample ID:** SMWU 14-9 (13-14')  
**Collection Date:** 7/18/2012 5:00:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 4.5    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Barium                               | 190    | 0.30  | 0.50 |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Beryllium                            | 1.3    | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Chromium                             | 19     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Cobalt                               | 6.5    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Iron                                 | 23000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 7:45:36 PM | 3107     |
| Lead                                 | ND     | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Manganese                            | 460    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:32:53 PM | 3107     |
| Nickel                               | 13     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Vanadium                             | 29     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |
| Zinc                                 | 27     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 7:30:27 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-006C

**Client Sample ID:** SMWU 14-7 (0-0.5')

**Collection Date:** 7/18/2012 6:30:00 PM

**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 5.3    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Barium                               | 650    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:50:38 PM | 3107     |
| Beryllium                            | 0.76   | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Chromium                             | 9.6    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Cobalt                               | 4.1    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 7:53:02 PM | 3107     |
| Lead                                 | 3.5    | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Manganese                            | 600    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:50:38 PM | 3107     |
| Nickel                               | 6.8    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Vanadium                             | 22     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |
| Zinc                                 | 30     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 7:48:14 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

## Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-007C

**Client Sample ID:** SMWU 14-7 (1.5-2')  
**Collection Date:** 7/18/2012 6:50:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     |                      |          |
|                                      |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Barium                               | 550    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:58:01 PM | 3107     |
| Beryllium                            | 0.68   | 0.047 | 0.75 | J    | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Chromium                             | 7.1    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Cobalt                               | 3.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Iron                                 | 11000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 8:00:26 PM | 3107     |
| Lead                                 | 3.2    | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Manganese                            | 1100   | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 7:58:01 PM | 3107     |
| Nickel                               | 5.6    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Vanadium                             | 18     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |
| Zinc                                 | 12     | 5.0   | 13   | J    | mg/Kg | 5   | 8/10/2012 7:55:37 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207922-008C

**Client Sample ID:** SMWU 14-7 (6-8')  
**Collection Date:** 7/18/2012 7:10:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     |                      |          |
| Analyst: ELS                         |        |       |      |      |       |     |                      |          |
| Antimony                             | 4.6    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Barium                               | 2400   | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 8:05:24 PM | 3107     |
| Beryllium                            | 1.2    | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Chromium                             | 14     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Cobalt                               | 6.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Iron                                 | 20000  | 370   | 500  |      | mg/Kg | 500 | 8/10/2012 8:07:51 PM | 3107     |
| Lead                                 | 2.6    | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Manganese                            | 400    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 8:05:24 PM | 3107     |
| Nickel                               | 11     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Vanadium                             | 27     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |
| Zinc                                 | 22     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 8:03:02 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |                                                         |                                                   |
|--------------------|---------------------------------------------------------|---------------------------------------------------|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method-Blank |
|                    | D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
|                    | H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
|                    | ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                      |
|                    | S % Recovery outside of range due to dilution or matrix |                                                   |

# Analytical Report

Lab Order: 1207922

Date Reported: 8/29/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SMWU 14-7 (23.5-24')

Project: SWMU NO.14

Collection Date: 7/18/2012 7:20:00 PM

Lab ID: 1207922-009C

Matrix: Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: ELS         |          |
| Antimony                             | 4.5    | 3.1   | 13   | J    | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Arsenic                              | ND     | 3.1   | 13   |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Barium                               | 350    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/10/2012 8:24:57 PM | 3107     |
| Beryllium                            | 1.2    | 0.047 | 0.75 |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Chromium                             | 17     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Cobalt                               | 7.6    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Iron                                 | 21000  | 370   | 500  |      | mg/Kg | 500 | 8/22/2012 7:45:41 AM | 3107     |
| Lead                                 | ND     | 1.1   | 1.3  |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Manganese                            | 740    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/10/2012 8:24:57 PM | 3107     |
| Nickel                               | 16     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Selenium                             | ND     | 7.0   | 13   |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Silver                               | ND     | 0.18  | 1.3  |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Vanadium                             | 16     | 0.28  | 13   |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |
| Zinc                                 | 25     | 5.0   | 13   |      | mg/Kg | 5   | 8/10/2012 8:22:31 PM | 3107     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/7/2012

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-10 (0-0.5')

Project: SWMU NO.14

Collection Date: 7/19/2012 11:00:00 AM

Lab ID: 1207940-001C

Matrix: Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | 3.3    | 3.1   | 12   | J    | mg/Kg | 5   | 8/1/2012 2:33:40 PM  | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Barium                               | 430    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/5/2012 12:52:36 PM | 3008     |
| Beryllium                            | 0.89   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 2:33:40 PM  | 3008     |
| Chromium                             | 23     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:33:40 PM  | 3008     |
| Cobalt                               | 5.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 12:54:47 PM | 3008     |
| Lead                                 | 7.7    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Manganese                            | 510    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/5/2012 12:52:36 PM | 3008     |
| Nickel                               | 9.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:33:40 PM  | 3008     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 2:33:40 PM  | 3008     |
| Zinc                                 | 49     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:32:50 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-10 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 11:05:00 AM**Lab ID:** 1207940-002C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 2:38:44 PM  | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Barium                               | 430    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/5/2012 12:57:26 PM | 3008     |
| Beryllium                            | 0.83   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 2:38:44 PM  | 3008     |
| Chromium                             | 23     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:38:44 PM  | 3008     |
| Cobalt                               | 5.1    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 12:59:38 PM | 3008     |
| Lead                                 | 6.8    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Manganese                            | 530    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/5/2012 12:57:26 PM | 3008     |
| Nickel                               | 8.8    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:38:44 PM  | 3008     |
| Vanadium                             | 23     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 2:38:44 PM  | 3008     |
| Zinc                                 | 43     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:35:11 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-003C

**Client Sample ID:** SWMU 14-8 (0-0.5')  
**Collection Date:** 7/19/2012 11:27:00 AM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | 4.5    | 3.1   | 12   | J    | mg/Kg | 5   | 8/1/2012 2:43:53 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Barium                               | 610    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/5/2012 1:02:12 PM | 3008     |
| Beryllium                            | 0.77   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 2:43:53 PM | 3008     |
| Chromium                             | 16     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:43:53 PM | 3008     |
| Cobalt                               | 5.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:14:21 PM | 3008     |
| Lead                                 | 6.2    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Manganese                            | 470    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/5/2012 1:02:12 PM | 3008     |
| Nickel                               | 7.4    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:43:53 PM | 3008     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 2:43:53 PM | 3008     |
| Zinc                                 | 33     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:37:35 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-004C

Client Sample ID: SWMU 14-8 (1.5-2.0')

Collection Date: 7/19/2012 11:40:00 AM

Matrix: Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 2:48:46 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Barium                               | 690    | 30    | 50   |      | mg/Kg | 500 | 8/5/2012 1:16:54 PM | 3008     |
| Beryllium                            | 0.88   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 2:48:46 PM | 3008     |
| Chromium                             | 10     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:48:46 PM | 3008     |
| Cobalt                               | 4.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:16:54 PM | 3008     |
| Lead                                 | 5.0    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Manganese                            | 190    | 0.11  | 0.50 |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Nickel                               | 7.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:48:46 PM | 3008     |
| Vanadium                             | 18     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 2:48:46 PM | 3008     |
| Zinc                                 | 15     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:39:56 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Project:** SWMU NO.14**Lab ID:** 1207940-005C**Client Sample ID:** SWMU 14-8 (1.5-2.0') DUP**Collection Date:** 7/19/2012 11:40:00 AM**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:02:41 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Barium                               | 410    | 6.1   | 10   |      | mg/Kg | 100 | 8/5/2012 1:21:10 PM | 3008     |
| Beryllium                            | 0.93   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:02:41 PM | 3008     |
| Chromium                             | 11     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:02:41 PM | 3008     |
| Cobalt                               | 5.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:23:20 PM | 3008     |
| Lead                                 | 3.7    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Manganese                            | 210    | 0.11  | 0.50 |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Nickel                               | 8.5    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 3:02:41 PM | 3008     |
| Vanadium                             | 21     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:02:41 PM | 3008     |
| Zinc                                 | 17     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:42:19 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-12 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 12:05:00 PM**Lab ID:** 1207940-006C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:07:46 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Barium                               | 150    | 0.30  | 0.50 |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Beryllium                            | 1.0    | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:07:46 PM | 3008     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:07:46 PM | 3008     |
| Cobalt                               | 5.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:25:53 PM | 3008     |
| Lead                                 | 4.4    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Manganese                            | 240    | 0.11  | 0.50 |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Nickel                               | 9.8    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 3:07:46 PM | 3008     |
| Vanadium                             | 23     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:07:46 PM | 3008     |
| Zinc                                 | 18     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:44:40 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207940

Date Reported: 9/7/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-12 (1.5-2.0')

Project: SWMU NO.14

Collection Date: 7/19/2012 12:12:00 PM

Lab ID: 1207940-007C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:12:50 PM | 3008     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Barium                        | 120    | 0.30  | 0.50 |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Beryllium                     | 0.95   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:12:50 PM | 3008     |
| Chromium                      | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:12:50 PM | 3008     |
| Cobalt                        | 5.3    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Iron                          | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:38:51 PM | 3008     |
| Lead                          | 2.6    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Manganese                     | 300    | 2.1   | 10   |      | mg/Kg | 100 | 8/5/2012 1:36:26 PM | 3008     |
| Nickel                        | 8.7    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 3:12:50 PM | 3008     |
| Vanadium                      | 22     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:12:50 PM | 3008     |
| Zinc                          | 18     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 3:47:03 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Project:** SWMU NO.14**Lab ID:** 1207940-008C**Client Sample ID:** SWMU 14-13 (0-0.5')**Collection Date:** 7/19/2012 12:36:00 PM**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                     |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:17:52 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Barium                               | 350    | 6.1   | 10   |      | mg/Kg | 100          | 8/5/2012 1:41:23 PM | 3008     |
| Beryllium                            | 0.97   | 0.046 | 0.75 |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 8/1/2012 3:17:52 PM | 3008     |
| Chromium                             | 17     | 0.59  | 1.5  |      | mg/Kg | 5            | 8/1/2012 3:17:52 PM | 3008     |
| Cobalt                               | 5.7    | 0.34  | 1.5  |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Iron                                 | 8400   | 370   | 500  |      | mg/Kg | 500          | 8/5/2012 1:43:37 PM | 3008     |
| Lead                                 | 2.0    | 1.1   | 1.2  |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Manganese                            | 340    | 2.1   | 10   |      | mg/Kg | 100          | 8/5/2012 1:41:23 PM | 3008     |
| Nickel                               | 9.1    | 0.83  | 2.5  |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 8/1/2012 3:17:52 PM | 3008     |
| Vanadium                             | 26     | 0.28  | 12   |      | mg/Kg | 5            | 8/1/2012 3:17:52 PM | 3008     |
| Zinc                                 | 36     | 5.0   | 12   |      | mg/Kg | 5            | 8/4/2012 3:49:23 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-13 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 12:45:00 PM**Lab ID:** 1207940-009C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                     |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:23:00 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Barium                               | 230    | 0.30  | 0.50 |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Beryllium                            | 1.0    | 0.046 | 0.75 |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 8/1/2012 3:23:00 PM | 3008     |
| Chromium                             | 13     | 0.59  | 1.5  |      | mg/Kg | 5            | 8/1/2012 3:23:00 PM | 3008     |
| Cobalt                               | 5.7    | 0.34  | 1.5  |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500          | 8/5/2012 1:48:51 PM | 3008     |
| Lead                                 | 3.3    | 1.1   | 1.2  |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Manganese                            | 390    | 2.1   | 10   |      | mg/Kg | 100          | 8/5/2012 1:46:28 PM | 3008     |
| Nickel                               | 9.5    | 0.83  | 2.5  |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 8/1/2012 3:23:00 PM | 3008     |
| Vanadium                             | 23     | 0.28  | 12   |      | mg/Kg | 5            | 8/1/2012 3:23:00 PM | 3008     |
| Zinc                                 | 19     | 5.0   | 12   |      | mg/Kg | 5            | 8/4/2012 4:01:53 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-14 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 1:07:00 PM**Lab ID:** 1207940-010C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                     |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Barium                               | 980    | 6.1   | 10   |      | mg/Kg | 100          | 8/5/2012 1:51:24 PM | 3008     |
| Beryllium                            | 0.93   | 0.046 | 0.75 |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Chromium                             | 18     | 0.59  | 1.5  |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Cobalt                               | 5.7    | 0.34  | 1.5  |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500          | 8/5/2012 1:55:14 PM | 3008     |
| Lead                                 | 3.3    | 1.1   | 1.2  |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |
| Manganese                            | 350    | 2.1   | 10   |      | mg/Kg | 100          | 8/5/2012 1:51:24 PM | 3008     |
| Nickel                               | 9.1    | 0.83  | 2.5  |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |
| Vanadium                             | 27     | 0.28  | 12   |      | mg/Kg | 5            | 8/1/2012 3:37:59 PM | 3008     |
| Zinc                                 | 34     | 5.0   | 12   |      | mg/Kg | 5            | 8/4/2012 4:04:15 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-14 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 1:12:00 PM**Lab ID:** 1207940-011C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Barium                               | 190    | 0.30  | 0.50 |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Beryllium                            | 1.0    | 0.047 | 0.75 |      | mg/kg | 5   | 8/15/2012 8:29:04 AM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Chromium                             | 11     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Cobalt                               | 4.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 1:57:49 PM  | 3008     |
| Lead                                 | 2.9    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Manganese                            | 240    | 0.11  | 0.50 |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Nickel                               | 8.1    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |
| Vanadium                             | 21     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:42:54 PM  | 3008     |
| Zinc                                 | 19     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:06:36 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |              |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|--------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank | Page 11 of 0 |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |              |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |              |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |              |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |              |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |              |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-11 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 1:33:00 PM**Lab ID:** 1207940-012C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Barium                               | 590    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:00:21 PM  | 3008     |
| Beryllium                            | 0.83   | 0.047 | 0.75 |      | mg/kg | 5   | 8/15/2012 8:33:02 AM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Chromium                             | 21     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Cobalt                               | 5.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:09:00 PM  | 3008     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:10:31 PM  | 3008     |
| Lead                                 | 7.0    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:09:00 PM  | 3008     |
| Manganese                            | 550    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:00:21 PM  | 3008     |
| Nickel                               | 9.7    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:09:00 PM  | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:09:00 PM  | 3008     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:48:04 PM  | 3008     |
| Zinc                                 | 59     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:09:00 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1207940

Date Reported: 9/7/2012

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-11 (1.5-2.0')

Project: SWMU NO.14

Collection Date: 7/19/2012 1:38:00 PM

Lab ID: 1207940-013C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|--------------|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       | Analyst: JLF |                      |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Barium                        | 620    | 1.2   | 2.0  |      | mg/Kg | 20           | 8/5/2012 2:13:07 PM  | 3008     |
| Beryllium                     | 0.84   | 0.046 | 0.75 |      | mg/kg | 5            | 8/15/2012 8:36:01 AM | 3008     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Chromium                      | 17     | 0.59  | 1.5  |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Cobalt                        | 4.9    | 0.34  | 1.5  |      | mg/Kg | 5            | 8/4/2012 4:11:21 PM  | 3008     |
| Iron                          | 15000  | 370   | 500  |      | mg/Kg | 500          | 8/5/2012 2:15:18 PM  | 3008     |
| Lead                          | 5.8    | 1.1   | 1.2  |      | mg/Kg | 5            | 8/4/2012 4:11:21 PM  | 3008     |
| Manganese                     | 700    | 0.42  | 2.0  |      | mg/Kg | 20           | 8/5/2012 2:13:07 PM  | 3008     |
| Nickel                        | 7.9    | 0.83  | 2.5  |      | mg/Kg | 5            | 8/4/2012 4:11:21 PM  | 3008     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 8/4/2012 4:11:21 PM  | 3008     |
| Vanadium                      | 24     | 0.28  | 12   |      | mg/Kg | 5            | 8/1/2012 3:53:08 PM  | 3008     |
| Zinc                          | 38     | 5.0   | 12   |      | mg/Kg | 5            | 8/4/2012 4:11:21 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-18 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 2:08:00 PM**Lab ID:** 1207940-014C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | <b>Analyst: JLF</b>  |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Barium                               | 620    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:17:56 PM  | 3008     |
| Beryllium                            | 0.86   | 0.046 | 0.75 |      | mg/kg | 5   | 8/15/2012 8:38:55 AM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Chromium                             | 25     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Cobalt                               | 5.2    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:13:45 PM  | 3008     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:20:11 PM  | 3008     |
| Lead                                 | 10     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:13:45 PM  | 3008     |
| Manganese                            | 580    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:17:56 PM  | 3008     |
| Nickel                               | 8.5    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:13:45 PM  | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:13:45 PM  | 3008     |
| Vanadium                             | 30     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 3:58:16 PM  | 3008     |
| Zinc                                 | 68     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:13:45 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**

Lab Order: 1207940

Date Reported: 9/7/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-015C

**Client Sample ID:** SWMU 14-18 (1.5-2.0')  
**Collection Date:** 7/19/2012 2:15:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 4:15:18 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Barium                               | 680    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:22:47 PM | 3008     |
| Beryllium                            | 0.76   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 4:15:18 PM | 3008     |
| Chromium                             | 26     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 4:15:18 PM | 3008     |
| Cobalt                               | 5.5    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:24:54 PM | 3008     |
| Lead                                 | 14     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Manganese                            | 540    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:22:47 PM | 3008     |
| Nickel                               | 8.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 4:15:18 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |
| Vanadium                             | 26     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 4:15:18 PM | 3008     |
| Zinc                                 | 65     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:16:06 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

## Analytical Report

Lab Order: 1207940

Date Reported: 9/7/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-5 (0-0.5")

Project: SWMU NO.14

Collection Date: 7/19/2012 3:00:00 PM

Lab ID: 1207940-016C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 4:20:29 PM | 3008     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Barium                        | 490    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:29:09 PM | 3008     |
| Beryllium                     | 0.68   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 4:20:29 PM | 3008     |
| Chromium                      | 63     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 4:20:29 PM | 3008     |
| Cobalt                        | 5.3    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Iron                          | 18000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:31:23 PM | 3008     |
| Lead                          | 14     | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Manganese                     | 550    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:29:09 PM | 3008     |
| Nickel                        | 9.8    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 4:20:29 PM | 3008     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |
| Vanadium                      | 26     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 4:20:29 PM | 3008     |
| Zinc                          | 190    | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:18:27 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |              |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|--------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank | Page 16 of 0 |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |              |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |              |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |              |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |              |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |              |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-5 (0-0.5') DUP**Project:** SWMU NO.14**Collection Date:** 7/19/2012 3:00:00 PM**Lab ID:** 1207940-017C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 4:25:31 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Barium                               | 460    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:33:58 PM | 3008     |
| Beryllium                            | 0.53   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 4:25:31 PM | 3008     |
| Chromium                             | 29     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 4:25:31 PM | 3008     |
| Cobalt                               | 3.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Iron                                 | 12000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:44:11 PM | 3008     |
| Lead                                 | 9.9    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Manganese                            | 870    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:33:58 PM | 3008     |
| Nickel                               | 7.1    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 4:25:31 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |
| Vanadium                             | 19     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 4:25:31 PM | 3008     |
| Zinc                                 | 160    | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:20:48 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-5 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 3:06:00 PM**Lab ID:** 1207940-018C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | <b>Analyst: JLF</b> |          |
| Antimony                             | 3.4    | 3.1   | 12   | J    | mg/Kg | 5   | 8/1/2012 4:30:33 PM | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Barium                               | 340    | 1.2   | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:46:45 PM | 3008     |
| Beryllium                            | 0.61   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 4:30:33 PM | 3008     |
| Chromium                             | 11     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 4:30:33 PM | 3008     |
| Cobalt                               | 4.6    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 8/5/2012 2:48:56 PM | 3008     |
| Lead                                 | 2.5    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Manganese                            | 450    | 0.42  | 2.0  |      | mg/Kg | 20  | 8/5/2012 2:46:45 PM | 3008     |
| Nickel                               | 7.1    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 4:30:33 PM | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |
| Vanadium                             | 26     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 4:30:33 PM | 3008     |
| Zinc                                 | 20     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:23:19 PM | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1207940

Date Reported: 9/7/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-19 (0-0.5')

Project: SWMU NO.14

Collection Date: 7/19/2012 3:26:00 PM

Lab ID: 1207940-019C

Matrix: Soil

| Analyses                      | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|-------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| EPA METHOD 6010B: SOIL METALS |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                      | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 4:35:32 PM  | 3008     |
| Arsenic                       | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Barium                        | 180    | 0.30  | 0.50 |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Beryllium                     | 0.38   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Cadmium                       | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 4:35:32 PM  | 3008     |
| Chromium                      | 6.6    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 4:35:32 PM  | 3008     |
| Cobalt                        | 3.2    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Iron                          | 8200   | 370   | 500  |      | mg/kg | 500 | 8/15/2012 8:55:15 AM | 3008     |
| Lead                          | 2.2    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Manganese                     | 300    | 0.42  | 2.0  |      | mg/kg | 20  | 8/15/2012 8:41:50 AM | 3008     |
| Nickel                        | 6.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Selenium                      | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 4:35:32 PM  | 3008     |
| Silver                        | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |
| Vanadium                      | 22     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 4:35:32 PM  | 3008     |
| Zinc                          | 18     | 5.0   | 12   |      | mg/Kg | 5   | 8/4/2012 4:37:38 PM  | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-020C

**Client Sample ID:** SWMU 14-19 (1.5-2.0')  
**Collection Date:** 7/19/2012 3:33:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Barium                               | 790    | 3.0   | 5.0  |      | mg/kg | 50  | 8/18/2012 11:41:55 AM | 3008     |
| Beryllium                            | 0.81   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Cobalt                               | 4.8    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Iron                                 | 12000  | 370   | 500  |      | mg/kg | 500 | 8/18/2012 11:44:19 AM | 3008     |
| Lead                                 | 4.1    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Manganese                            | 640    | 1.1   | 5.0  |      | mg/kg | 50  | 8/18/2012 11:41:55 AM | 3008     |
| Nickel                               | 8.0    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Vanadium                             | 21     | 0.28  | 12   |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |
| Zinc                                 | 34     | 5.0   | 12   |      | mg/Kg | 5   | 8/1/2012 2:07:41 PM   | 3008     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |              |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|--------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank | Page 20 of 0 |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |              |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |              |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |              |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |              |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |              |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-17 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 4:11:00 PM**Lab ID:** 1207940-021C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Barium                               | 850    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/6/2012 4:20:43 PM | 3009     |
| Beryllium                            | 0.86   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Chromium                             | 20     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Cobalt                               | 5.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Iron                                 | 17000  | 370   | 500  |      | mg/Kg | 500 | 8/6/2012 4:23:05 PM | 3009     |
| Lead                                 | 7.1    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Manganese                            | 560    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/6/2012 4:20:43 PM | 3009     |
| Nickel                               | 12     | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Vanadium                             | 28     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |
| Zinc                                 | 230    | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:04:02 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-17 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 4:18:00 PM**Lab ID:** 1207940-022C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Barium                               | 600    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:31:51 AM | 3009     |
| Beryllium                            | 0.87   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Chromium                             | 25     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Cobalt                               | 5.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 9:34:20 AM | 3009     |
| Lead                                 | 3.2    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Manganese                            | 640    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:31:51 AM | 3009     |
| Nickel                               | 8.7    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Vanadium                             | 27     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |
| Zinc                                 | 37     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:09:28 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

Date Reported: 9/7/2012

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-023C

**Client Sample ID:** SWMU 14-16 (0-0.5')  
**Collection Date:** 7/19/2012 4:45:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Barium                               | 550    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:37:03 AM | 3009     |
| Beryllium                            | 0.62   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Chromium                             | 13     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Cobalt                               | 4.4    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Iron                                 | 11000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 9:39:29 AM | 3009     |
| Lead                                 | 4.8    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Manganese                            | 1100   | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:37:03 AM | 3009     |
| Nickel                               | 6.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Vanadium                             | 22     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |
| Zinc                                 | 69     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:11:50 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-16 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 4:51:00 PM**Lab ID:** 1207940-024C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | <b>Analyst: JLF</b>  |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Barium                               | 1000   | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 12:12:41 PM | 3009     |
| Beryllium                            | 0.73   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Chromium                             | 15     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Cobalt                               | 4.5    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 12:15:05 PM | 3009     |
| Lead                                 | 5.1    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Manganese                            | 560    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 12:12:41 PM | 3009     |
| Nickel                               | 7.1    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |
| Zinc                                 | 25     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:14:15 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1207940-025C

**Client Sample ID:** SWMU 14-15 (0-0.5')  
**Collection Date:** 7/19/2012 5:14:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF        |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Barium                               | 670    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:42:14 AM | 3009     |
| Beryllium                            | 0.67   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Chromium                             | 14     | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Cobalt                               | 4.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Iron                                 | 12000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 9:44:39 AM | 3009     |
| Lead                                 | 4.1    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Manganese                            | 540    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 9:42:14 AM | 3009     |
| Nickel                               | 8.2    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Vanadium                             | 23     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |
| Zinc                                 | 140    | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:18:23 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-15 (1.5-2.0')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 5:19:00 PM**Lab ID:** 1207940-026C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units        | DF  | Date Analyzed       | Batch ID |
|--------------------------------------|--------|-------|------|------|--------------|-----|---------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      | Analyst: JLF |     |                     |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Barium                               | 650    | 3.0   | 5.0  |      | mg/Kg        | 50  | 8/8/2012 9:47:22 AM | 3009     |
| Beryllium                            | 0.51   | 0.046 | 0.75 | J    | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Chromium                             | 8.9    | 0.59  | 1.5  |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Cobalt                               | 3.6    | 0.34  | 1.5  |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Iron                                 | 7300   | 370   | 500  |      | mg/Kg        | 500 | 8/8/2012 9:49:47 AM | 3009     |
| Lead                                 | 1.3    | 1.1   | 1.2  |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Manganese                            | 360    | 1.1   | 5.0  |      | mg/Kg        | 50  | 8/8/2012 9:47:22 AM | 3009     |
| Nickel                               | 5.6    | 0.83  | 2.5  |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Vanadium                             | 20     | 0.28  | 12   |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |
| Zinc                                 | 68     | 5.0   | 12   |      | mg/Kg        | 5   | 8/5/2012 5:20:48 PM | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |              |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|--------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank | Page 26 of 0 |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |              |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |              |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |              |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |              |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |              |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-20 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 7/19/2012 5:50:00 PM**Lab ID:** 1207940-027C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Barium                               | 940    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:03:14 AM | 3009     |
| Beryllium                            | 0.69   | 0.046 | 0.75 | J    | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Chromium                             | 9.4    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Cobalt                               | 5.2    | 0.69  | 3.0  |      | mg/Kg | 10  | 8/8/2012 11:34:09 AM | 3009     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:05:39 AM | 3009     |
| Lead                                 | 2.7    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Manganese                            | 650    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:03:14 AM | 3009     |
| Nickel                               | 6.9    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Vanadium                             | 21     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |
| Zinc                                 | 17     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:31:38 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-20 (0-0.5') DUP**Project:** SWMU NO.14**Collection Date:** 7/19/2012 5:50:00 PM**Lab ID:** 1207940-028C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed        | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF         |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Barium                               | 890    | 3.0   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:08:22 AM | 3009     |
| Beryllium                            | 0.76   | 0.046 | 0.75 |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Chromium                             | 8.7    | 0.59  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Cobalt                               | 7.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 8/8/2012 10:10:49 AM | 3009     |
| Lead                                 | 3.0    | 1.1   | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Manganese                            | 910    | 1.1   | 5.0  |      | mg/Kg | 50  | 8/8/2012 10:08:22 AM | 3009     |
| Nickel                               | 8.0    | 0.83  | 2.5  |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Vanadium                             | 24     | 0.28  | 12   |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |
| Zinc                                 | 22     | 5.0   | 12   |      | mg/Kg | 5   | 8/5/2012 5:34:01 PM  | 3009     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1210582-001C

**Client Sample ID:** SWMU 14-6 (0-0.5')  
**Collection Date:** 10/9/2012 1:35:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Barium                               | 350    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:56:55 PM | 4298     |
| Beryllium                            | 1.0    | 0.046 | 0.75 |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Chromium                             | 9.7    | 0.59  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Cobalt                               | 5.0    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:59:21 PM | 4298     |
| Lead                                 | 6.4    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Manganese                            | 420    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:56:55 PM | 4298     |
| Nickel                               | 8.2    | 0.83  | 2.5  |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:39:07 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Vanadium                             | 17     | 0.28  | 12   |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |
| Zinc                                 | 17     | 5.0   | 12   |      | mg/Kg | 5   | 10/16/2012 5:38:30 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1210582-002C

**Client Sample ID:** SWMU 14-6 (1.5-2')  
**Collection Date:** 10/9/2012 1:45:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                       |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Barium                               | 330    | 0.61  | 1.0  |      | mg/Kg | 10           | 10/17/2012 3:01:57 PM | 4298     |
| Beryllium                            | 0.78   | 0.046 | 0.75 |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Chromium                             | 23     | 0.59  | 1.5  |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Cobalt                               | 4.5    | 0.34  | 1.5  |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500          | 10/17/2012 3:14:30 PM | 4298     |
| Lead                                 | 5.6    | 1.1   | 1.2  |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Manganese                            | 370    | 0.21  | 1.0  |      | mg/Kg | 10           | 10/17/2012 3:01:57 PM | 4298     |
| Nickel                               | 7.1    | 0.83  | 2.5  |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5            | 10/23/2012 7:44:25 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Vanadium                             | 23     | 0.28  | 12   |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |
| Zinc                                 | 26     | 5.0   | 12   |      | mg/Kg | 5            | 10/16/2012 5:43:36 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1210582-003C

**Client Sample ID:** SWMU 14-6 (10-12')

**Collection Date:** 10/9/2012 1:55:00 PM

**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Barium                               | 340    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/17/2012 3:17:21 PM | 4298     |
| Beryllium                            | 0.83   | 0.046 | 0.75 |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Chromium                             | 9.1    | 0.59  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Cobalt                               | 4.7    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 3:19:44 PM | 4298     |
| Lead                                 | 4.5    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Manganese                            | 340    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/17/2012 3:17:21 PM | 4298     |
| Nickel                               | 7.6    | 0.83  | 2.5  |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:46:48 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Vanadium                             | 21     | 0.28  | 12   |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |
| Zinc                                 | 16     | 5.0   | 12   |      | mg/Kg | 5   | 10/16/2012 5:50:19 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-6 (17-18')**Project:** SWMU NO.14**Collection Date:** 10/9/2012 2:10:00 PM**Lab ID:** 1210582-004C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Barium                               | 290    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/17/2012 3:22:21 PM | 4298     |
| Beryllium                            | 0.87   | 0.046 | 0.75 |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Chromium                             | 8.9    | 0.59  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Cobalt                               | 5.6    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 3:27:16 PM | 4298     |
| Lead                                 | 2.9    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Manganese                            | 1100   | 1.1   | 5.0  |      | mg/Kg | 50  | 10/17/2012 3:24:47 PM | 4298     |
| Nickel                               | 11     | 0.83  | 2.5  |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:49:15 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Vanadium                             | 9.0    | 0.28  | 12   | J    | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |
| Zinc                                 | 17     | 5.0   | 12   |      | mg/Kg | 5   | 10/16/2012 5:55:27 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-21 (0-0.5')**Project:** SWMU NO.14**Collection Date:** 10/9/2012 3:35:00 PM**Lab ID:** 1210582-005C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF           | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|--------------|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       | Analyst: JLF |                       |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Barium                               | 470    | 0.61  | 1.0  |      | mg/Kg | 10           | 10/17/2012 3:29:50 PM | 4298     |
| Beryllium                            | 0.49   | 0.046 | 0.75 | J    | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Chromium                             | 5.7    | 0.59  | 1.5  |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Cobalt                               | 3.2    | 0.34  | 1.5  |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Iron                                 | 11000  | 370   | 500  |      | mg/Kg | 500          | 10/17/2012 3:34:44 PM | 4298     |
| Lead                                 | 10     | 1.1   | 1.2  |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Manganese                            | 550    | 1.1   | 5.0  |      | mg/Kg | 50           | 10/17/2012 3:32:16 PM | 4298     |
| Nickel                               | 4.3    | 0.83  | 2.5  |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5            | 10/23/2012 7:51:43 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Vanadium                             | 17     | 0.28  | 12   |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |
| Zinc                                 | 29     | 5.0   | 12   |      | mg/Kg | 5            | 10/16/2012 6:00:28 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-21 (1.5-2')**Project:** SWMU NO.14**Collection Date:** 10/9/2012 3:45:00 PM**Lab ID:** 1210582-006C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/23/2012 7:54:10 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Barium                               | 750    | 3.0   | 5.0  |      | mg/Kg | 50  | 10/17/2012 3:52:04 PM | 4298     |
| Beryllium                            | 0.74   | 0.046 | 0.75 | J    | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Chromium                             | 7.4    | 0.59  | 1.5  |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Cobalt                               | 3.9    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Iron                                 | 12000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 3:54:29 PM | 4298     |
| Lead                                 | 5.0    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Manganese                            | 550    | 1.1   | 5.0  |      | mg/Kg | 50  | 10/17/2012 3:52:04 PM | 4298     |
| Nickel                               | 6.1    | 0.83  | 2.5  |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:54:10 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Vanadium                             | 16     | 0.28  | 12   |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |
| Zinc                                 | 22     | 5.0   | 12   |      | mg/Kg | 5   | 10/16/2012 6:14:02 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Project:** SWMU NO.14**Lab ID:** 1210582-007C**Client Sample ID:** SWMU 14-21 (8-10')**Collection Date:** 10/9/2012 4:00:00 PM**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/23/2012 7:56:35 PM | 4298     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Barium                               | 160    | 0.30  | 0.50 |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Beryllium                            | 0.91   | 0.046 | 0.75 |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Chromium                             | 8.0    | 0.59  | 1.5  |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Cobalt                               | 4.3    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Iron                                 | 12000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 3:57:07 PM | 4298     |
| Lead                                 | 4.7    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Manganese                            | 220    | 0.11  | 0.50 |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Nickel                               | 7.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:56:35 PM | 4298     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Vanadium                             | 14     | 0.28  | 12   |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |
| Zinc                                 | 13     | 5.0   | 12   |      | mg/Kg | 5   | 10/16/2012 6:18:57 PM | 4298     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

## Analytical Report

Lab Order: 1210583

Date Reported: 11/12/2012

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-22 (0-0.5")

Project: SWMU No.14

Collection Date: 10/9/2012 4:45:00 PM

Lab ID: 1210583-001C

Matrix: Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed         | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|-----------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF          |          |
| Antimony                             | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/23/2012 7:59:00 PM | 4300     |
| Arsenic                              | ND     | 3.1   | 12   |      | mg/Kg | 5   | 10/23/2012 7:59:00 PM | 4300     |
| Barium                               | 630    | 1.2   | 2.0  |      | mg/Kg | 20  | 10/23/2012 8:18:50 PM | 4300     |
| Beryllium                            | 0.90   | 0.046 | 0.75 |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Cadmium                              | ND     | 0.14  | 0.50 |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Chromium                             | 12     | 0.59  | 1.5  |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Cobalt                               | 5.5    | 0.34  | 1.5  |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:19:56 PM | 4300     |
| Lead                                 | 5.9    | 1.1   | 1.2  |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Manganese                            | 550    | 0.42  | 2.0  |      | mg/Kg | 20  | 10/23/2012 8:18:50 PM | 4300     |
| Nickel                               | 8.3    | 0.83  | 2.5  |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Selenium                             | ND     | 7.0   | 12   |      | mg/Kg | 5   | 10/23/2012 7:59:00 PM | 4300     |
| Silver                               | ND     | 0.18  | 1.2  |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Vanadium                             | 25     | 0.28  | 12   |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |
| Zinc                                 | 33     | 5.0   | 12   |      | mg/Kg | 5   | 10/17/2012 2:07:35 PM | 4300     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU No.14  
**Lab ID:** 1210583-002C

**Client Sample ID:** SWMU 14-22 (1.5-2')  
**Collection Date:** 10/9/2012 4:55:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF           |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:21:15 PM  | 4300     |
| Arsenic                              | 1.6    | 1.3   | 5.0  | J    | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Barium                               | 430    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:22:31 PM  | 4300     |
| Beryllium                            | 0.83   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Chromium                             | 10     | 0.24  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Cobalt                               | 4.2    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Iron                                 | 14000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:24:56 PM  | 4300     |
| Lead                                 | 4.3    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Manganese                            | 540    | 0.42  | 2.0  |      | mg/Kg | 20  | 10/23/2012 8:23:45 PM  | 4300     |
| Nickel                               | 7.2    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:21:15 PM  | 4300     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Vanadium                             | 17     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |
| Zinc                                 | 20     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:11:16 PM | 4300     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

**Analytical Report**

Lab Order: 1210583

Date Reported: 11/12/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-22 (4-6')**Project:** SWMU No.14**Collection Date:** 10/9/2012 5:20:00 PM**Lab ID:** 1210583-003C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF           |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:26:10 PM  | 4300     |
| Arsenic                              | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Barium                               | 170    | 0.30  | 0.50 |      | mg/Kg | 5   | 10/17/2012 2:39:25 PM  | 4300     |
| Beryllium                            | 0.89   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Chromium                             | 7.6    | 0.24  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Cobalt                               | 4.3    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:44:12 PM  | 4300     |
| Lead                                 | 4.0    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Manganese                            | 370    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:41:49 PM  | 4300     |
| Nickel                               | 7.2    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:26:10 PM  | 4300     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Vanadium                             | 13     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |
| Zinc                                 | 13     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:16:23 PM | 4300     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |
|                    |    |                                                       |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-22 (4-6') DUP**Project:** SWMU No.14**Collection Date:** 10/9/2012 5:20:00 PM**Lab ID:** 1210583-004C**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF           |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:28:35 PM  | 4300     |
| Arsenic                              | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Barium                               | 170    | 0.30  | 0.50 |      | mg/Kg | 5   | 10/17/2012 2:46:48 PM  | 4300     |
| Beryllium                            | 0.84   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Chromium                             | 6.8    | 0.24  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Cobalt                               | 3.9    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Iron                                 | 12000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:49:14 PM  | 4300     |
| Lead                                 | 4.2    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Manganese                            | 230    | 0.11  | 0.50 |      | mg/Kg | 5   | 10/17/2012 2:46:48 PM  | 4300     |
| Nickel                               | 6.5    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:28:35 PM  | 4300     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Vanadium                             | 12     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |
| Zinc                                 | 12     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:21:23 PM | 4300     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |             |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|-------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank | Page 4 of 0 |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |             |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |             |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |             |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |             |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |             |

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU No.14  
**Lab ID:** 1210583-005C

**Client Sample ID:** SWMU 14-22 (8-10')  
**Collection Date:** 10/9/2012 5:30:00 PM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: JLF           |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:30:59 PM  | 4300     |
| Arsenic                              | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Barium                               | 250    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:51:50 PM  | 4300     |
| Beryllium                            | 0.80   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Chromium                             | 9.3    | 0.24  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Cobalt                               | 3.8    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Iron                                 | 13000  | 370   | 500  |      | mg/Kg | 500 | 10/17/2012 2:54:18 PM  | 4300     |
| Lead                                 | 3.9    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Manganese                            | 270    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/17/2012 2:51:50 PM  | 4300     |
| Nickel                               | 7.4    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/23/2012 8:30:59 PM  | 4300     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Vanadium                             | 13     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |
| Zinc                                 | 14     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/17/2012 12:28:03 PM | 4300     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1210656

Date Reported: 11/13/2012

CLIENT: Western Refining Company

Client Sample ID: SWMU 14-23 (0-0.5')

Project: SWMU NO.14

Collection Date: 10/10/2012 1:45:00 PM

Lab ID: 1210656-001

Matrix: SOIL

Received Date: 10/12/2012 8:00:00 AM

| Analyses                      | Result | RL   | Qual | Units | DF  | Date Analyzed         |
|-------------------------------|--------|------|------|-------|-----|-----------------------|
| EPA METHOD 6010B: SOIL METALS |        |      |      |       |     | Analyst: JLF          |
| Antimony                      | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Arsenic                       | 2.2    | 5.0  | J    | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Barium                        | 600    | 5.0  |      | mg/Kg | 50  | 10/25/2012 3:37:00 PM |
| Beryllium                     | 0.61   | 0.30 |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Cadmium                       | ND     | 0.20 |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Chromium                      | 9.6    | 0.60 |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Cobalt                        | 3.4    | 0.60 |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Iron                          | 13000  | 500  |      | mg/Kg | 500 | 10/25/2012 3:39:26 PM |
| Lead                          | 4.2    | 0.50 |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Manganese                     | 720    | 5.0  |      | mg/Kg | 50  | 10/25/2012 3:37:00 PM |
| Nickel                        | 5.9    | 1.0  |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Selenium                      | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Silver                        | ND     | 0.50 |      | mg/Kg | 2   | 10/31/2012 2:41:44 PM |
| Vanadium                      | 18     | 5.0  |      | mg/Kg | 2   | 10/25/2012 3:06:37 PM |
| Zinc                          | 140    | 12   |      | mg/Kg | 5   | 10/25/2012 3:21:25 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|             |    |                                                       |    |                                                 |
|-------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|             | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|             | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|             | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|             | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|             | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-23 (1.5-2')**Project:** SWMU NO.14**Collection Date:** 10/10/2012 1:55:00 PM**Lab ID:** 1210656-002**Matrix:** SOIL**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                             | Result | RL   | Qual | Units | DF  | Date Analyzed         |
|--------------------------------------|--------|------|------|-------|-----|-----------------------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |      |      |       |     | Analyst: JLF          |
| Antimony                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Arsenic                              | 3.0    | 5.0  | J    | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Barium                               | 460    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:25:06 PM |
| Beryllium                            | 0.62   | 0.30 |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Cadmium                              | ND     | 0.20 |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Chromium                             | 15     | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Cobalt                               | 3.7    | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Iron                                 | 12000  | 500  |      | mg/Kg | 500 | 10/25/2012 8:27:45 PM |
| Lead                                 | 7.6    | 0.50 |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Manganese                            | 570    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:25:06 PM |
| Nickel                               | 6.5    | 1.0  |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Selenium                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Silver                               | ND     | 0.50 |      | mg/Kg | 2   | 10/31/2012 2:53:24 PM |
| Vanadium                             | 16     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |
| Zinc                                 | 41     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:22:15 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-23 (12-14')**Project:** SWMU NO.14**Collection Date:** 10/10/2012 2:05:00 PM**Lab ID:** 1210656-003**Matrix:** SOIL**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                             | Result | RL   | Qual | Units | DF  | Date Analyzed         |
|--------------------------------------|--------|------|------|-------|-----|-----------------------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |      |      |       |     | Analyst: JLF          |
| Antimony                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Arsenic                              | 1.6    | 5.0  | J    | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Barium                               | 220    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:48:33 PM |
| Beryllium                            | 0.87   | 0.30 |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Cadmium                              | ND     | 0.20 |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Chromium                             | 8.3    | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Cobalt                               | 4.0    | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Iron                                 | 13000  | 500  |      | mg/Kg | 500 | 10/25/2012 8:51:11 PM |
| Lead                                 | 3.7    | 0.50 |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Manganese                            | 300    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:48:33 PM |
| Nickel                               | 7.2    | 1.0  |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Selenium                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Silver                               | ND     | 0.50 |      | mg/Kg | 2   | 10/31/2012 3:08:43 PM |
| Vanadium                             | 14     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |
| Zinc                                 | 13     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:45:39 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Company**Client Sample ID:** SWMU 14-23 (14-16')**Project:** SWMU NO.14**Collection Date:** 10/10/2012 2:15:00 PM**Lab ID:** 1210656-004**Matrix:** SOIL**Received Date:** 10/12/2012 8:00:00 AM

| Analyses                             | Result | RL   | Qual | Units | DF  | Date Analyzed         |
|--------------------------------------|--------|------|------|-------|-----|-----------------------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |      |      |       |     | Analyst: JLF          |
| Antimony                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Arsenic                              | 1.3    | 5.0  | J    | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Barium                               | 130    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:59:50 PM |
| Beryllium                            | 0.75   | 0.30 |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Cadmium                              | ND     | 0.20 |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Chromium                             | 7.8    | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Cobalt                               | 4.0    | 0.60 |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Iron                                 | 12000  | 500  |      | mg/Kg | 500 | 10/25/2012 9:02:34 PM |
| Lead                                 | 3.5    | 0.50 |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Manganese                            | 570    | 2.0  |      | mg/Kg | 20  | 10/25/2012 8:59:50 PM |
| Nickel                               | 6.8    | 1.0  |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Selenium                             | ND     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Silver                               | ND     | 0.50 |      | mg/Kg | 2   | 10/31/2012 3:11:38 PM |
| Vanadium                             | 15     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |
| Zinc                                 | 12     | 5.0  |      | mg/Kg | 2   | 10/25/2012 8:56:59 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**Lab Order: **1210860**Date Reported: **11/16/2012****Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1210860-001C

**Client Sample ID:** SWMU 14-24 (0-0.5')  
**Collection Date:** 10/17/2012 10:15:00 AM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: <b>JLF</b>    |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Arsenic                              | 2.1    | 1.3   | 5.0  | J    | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Barium                               | 440    | 0.61  | 1.0  |      | mg/Kg | 10  | 10/25/2012 2:09:26 PM  | 4440     |
| Beryllium                            | 0.80   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Chromium                             | 10     | 0.24  | 0.60 |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Cobalt                               | 4.6    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Iron                                 | 15000  | 370   | 500  |      | mg/Kg | 500 | 11/2/2012 7:08:54 AM   | 4440     |
| Lead                                 | 2.5    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Manganese                            | 450    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/25/2012 2:09:26 PM  | 4440     |
| Nickel                               | 8.0    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/31/2012 1:23:58 PM  | 4440     |
| Vanadium                             | 22     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |
| Zinc                                 | 25     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:21:41 PM | 4440     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |

**Analytical Report**Lab Order: **1210860**Date Reported: **11/16/2012****Hall Environmental Analysis Laboratory, Inc.**

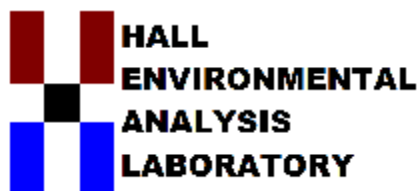
**CLIENT:** Western Refining Company  
**Project:** SWMU NO.14  
**Lab ID:** 1210860-002C

**Client Sample ID:** SWMU 14-24 (1.5-2')  
**Collection Date:** 10/17/2012 10:30:00 AM  
**Matrix:** Soil

| Analyses                             | Result | MDL   | RL   | Qual | Units | DF  | Date Analyzed          | Batch ID |
|--------------------------------------|--------|-------|------|------|-------|-----|------------------------|----------|
| <b>EPA METHOD 6010B: SOIL METALS</b> |        |       |      |      |       |     | Analyst: <b>JLF</b>    |          |
| Antimony                             | ND     | 1.3   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Arsenic                              | 1.7    | 1.3   | 5.0  | J    | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Barium                               | 43     | 0.12  | 0.20 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Beryllium                            | 0.83   | 0.019 | 0.30 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Cadmium                              | ND     | 0.054 | 0.20 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Chromium                             | 7.8    | 0.24  | 0.60 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Cobalt                               | 3.5    | 0.14  | 0.60 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Iron                                 | 16000  | 370   | 500  |      | mg/Kg | 500 | 11/2/2012 7:21:58 AM   | 4440     |
| Lead                                 | 3.3    | 0.44  | 0.50 |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Manganese                            | 230    | 0.21  | 1.0  |      | mg/Kg | 10  | 10/25/2012 2:14:32 PM  | 4440     |
| Nickel                               | 6.4    | 0.33  | 1.0  |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Selenium                             | ND     | 2.8   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Silver                               | ND     | 0.071 | 0.50 |      | mg/Kg | 2   | 10/31/2012 1:26:49 PM  | 4440     |
| Vanadium                             | 14     | 0.11  | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |
| Zinc                                 | 12     | 2.0   | 5.0  |      | mg/Kg | 2   | 10/25/2012 12:26:50 PM | 4440     |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

|                    |    |                                                       |    |                                                 |
|--------------------|----|-------------------------------------------------------|----|-------------------------------------------------|
| <b>Qualifiers:</b> | *  | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
|                    | D  | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
|                    | H  | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
|                    | ND | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
|                    | R  | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                       |
|                    | S  | % Recovery outside of range due to dilution or matrix |    |                                                 |



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 03, 2012

Ed Riege

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: SWMU NO.14

OrderNo.: 1207748

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (0-0.5)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:15:00 PM

**Lab ID:** 1207748-001

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | 33     | 9.9      |      | mg/Kg | 1   | 7/20/2012 9:15:31 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 7/20/2012 9:15:31 AM |
| Surr: DNOP                                     | 121    | 77.6-140 |      | %REC  | 1   | 7/20/2012 9:15:31 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 7/20/2012 3:30:59 AM |
| Surr: BFB                                      | 102    | 69.7-121 |      | %REC  | 1   | 7/20/2012 3:30:59 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | 0.038  | 0.033    |      | mg/Kg | 1   | 7/20/2012 2:58:09 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM |
| Barium                                         | 790    | 2.0      |      | mg/Kg | 20  | 7/25/2012 5:52:08 PM |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM |
| Chromium                                       | 6.8    | 1.5      |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM |
| Cobalt                                         | 5.4    | 1.5      |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| Iron                                           | 9000   | 500      |      | mg/Kg | 500 | 7/31/2012 6:15:57 PM |
| Lead                                           | 3.6    | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM |
| Manganese                                      | 570    | 2.0      |      | mg/Kg | 20  | 7/30/2012 7:33:13 PM |
| Nickel                                         | 6.1    | 2.5      |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 7/30/2012 7:30:35 PM |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:36:01 PM |
| Vanadium                                       | 17     | 12       |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| Zinc                                           | 21     | 12       |      | mg/Kg | 5   | 7/26/2012 8:30:20 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 6:35:04 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (0-0.5)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:15:00 PM

**Lab ID:** 1207748-001

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2-Chloronaphthalene                    | ND     | 1.2 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Di-n-octyl phthalate                   | ND     | 1.2 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.2 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 6:35:04 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-1 (0-0.5)

Project: SWMU NO.14

Collection Date: 7/16/2012 4:15:00 PM

Lab ID: 1207748-001

Matrix: SOIL

Received Date: 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-----------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 4-Nitroaniline                         | ND     | 2.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Nitrobenzene                           | ND     | 2.5      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 2-Nitrophenol                          | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 4-Nitrophenol                          | ND     | 1.2      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Pentachlorophenol                      | ND     | 2.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Phenanthrene                           | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Phenol                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Pyrene                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Pyridine                               | ND     | 2.5      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 2,4,5-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| 2,4,6-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 6:35:04 PM |
| Surr: 2,4,6-Tribromophenol             | 68.1   | 20.1-121 |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| Surr: 2-Fluorobiphenyl                 | 60.0   | 19-133   |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| Surr: 2-Fluorophenol                   | 53.8   | 20.2-108 |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| Surr: 4-Terphenyl-d14                  | 57.8   | 18.9-115 |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| Surr: Nitrobenzene-d5                  | 59.7   | 20.8-123 |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| Surr: Phenol-d5                        | 53.0   | 19.8-115 |      | %REC      | 1  | 7/26/2012 6:35:04 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS         |
| Benzene                                | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Toluene                                | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Ethylbenzene                           | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Xylenes, Total                         | ND     | 1.67     |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Naphthalene                            | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1-Methylnaphthalene                    | ND     | 3.34     |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 2-Methylnaphthalene                    | ND     | 3.34     |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Acetone                                | ND     | 8.35     |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Bromobenzene                           | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Bromodichloromethane                   | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Bromoform                              | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 2-Butanone                             | ND     | 1.67     |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Carbon tetrachloride                   | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Chlorobenzene                          | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Chloroethane                           | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Chloroform                             | ND     | 0.835    |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |

**Qualifiers:** \* / X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (0-0.5)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:15:00 PM

**Lab ID:** 1207748-001

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL    | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|-------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |       |      |           |    | Analyst: MMS         |
| Chloromethane                          | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 2-Chlorotoluene                        | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Carbon disulfide                       | ND     | 1.67  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 4-Chlorotoluene                        | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| cis-1,2-DCE                            | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| cis-1,3-Dichloropropene                | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 1.67  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Dibromochloromethane                   | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Dibromomethane                         | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Dichlorodifluoromethane                | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1-Dichloroethane                     | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1-Dichloroethene                     | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2-Dichloropropane                    | ND     | 1.67  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,3-Dichloropropane                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 2,2-Dichloropropane                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1-Dichloropropene                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Hexachlorobutadiene                    | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Isopropylbenzene                       | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 4-Isopropyltoluene                     | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Methylene chloride                     | ND     | 8.35  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| n-Butylbenzene                         | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 2-Hexanone                             | ND     | 1.67  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| n-Propylbenzene                        | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| sec-Butylbenzene                       | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Styrene                                | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 4-Methyl-2-pentanone                   | ND     | 1.67  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| tert-Butylbenzene                      | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Tetrachloroethene (PCE)                | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| trans-1,2-DCE                          | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| trans-1,3-Dichloropropene              | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Trichloroethene (TCE)                  | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Trichlorofluoromethane                 | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.835 |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (0-0.5)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:15:00 PM

**Lab ID:** 1207748-001

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|--------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: MMS         |
| Vinyl chloride                         | ND     | 0.835  |      | µg/Kg-dry | 1  | 7/18/2012 3:33:05 PM |
| Surr: 1,2-Dichloroethane-d4            | 103    | 70-130 |      | %REC      | 1  | 7/18/2012 3:33:05 PM |
| Surr: 4-Bromofluorobenzene             | 100    | 70-130 |      | %REC      | 1  | 7/18/2012 3:33:05 PM |
| Surr: Dibromofluoromethane             | 103    | 70-130 |      | %REC      | 1  | 7/18/2012 3:33:05 PM |
| Surr: Toluene-d8                       | 102    | 70-130 |      | %REC      | 1  | 7/18/2012 3:33:05 PM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (1.5-2)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:20:00 PM

**Lab ID:** 1207748-002

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 30     | 10       |      | mg/Kg | 1   | 7/20/2012 10:42:33 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 7/20/2012 10:42:33 AM |
| Surr: DNOP                                     | 121    | 77.6-140 |      | %REC  | 1   | 7/20/2012 10:42:33 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 7/20/2012 3:59:43 AM  |
| Surr: BFB                                      | 102    | 69.7-121 |      | %REC  | 1   | 7/20/2012 3:59:43 AM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD          |
| Mercury                                        | ND     | 0.033    |      | mg/Kg | 1   | 7/20/2012 2:59:54 PM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 7/25/2012 5:42:55 PM  |
| Barium                                         | 550    | 2.0      |      | mg/Kg | 20  | 7/25/2012 5:54:25 PM  |
| Beryllium                                      | 0.89   | 0.75     |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 7/25/2012 5:42:55 PM  |
| Chromium                                       | 11     | 1.5      |      | mg/Kg | 5   | 7/25/2012 5:42:55 PM  |
| Cobalt                                         | 5.1    | 1.5      |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| Iron                                           | 17000  | 500      |      | mg/Kg | 500 | 7/31/2012 6:23:35 PM  |
| Lead                                           | 4.6    | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:42:55 PM  |
| Manganese                                      | 510    | 2.0      |      | mg/Kg | 20  | 7/30/2012 7:40:43 PM  |
| Nickel                                         | 8.3    | 2.5      |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| Selenium                                       | ND     | 50       |      | mg/Kg | 20  | 7/30/2012 7:40:43 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:42:55 PM  |
| Vanadium                                       | 26     | 12       |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| Zinc                                           | 21     | 12       |      | mg/Kg | 5   | 7/26/2012 8:33:08 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 7/26/2012 7:04:57 PM  |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (1.5-2)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:20:00 PM

**Lab ID:** 1207748-002

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Di-n-octyl phthalate                   | ND     | 1.3 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 7/26/2012 7:04:57 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-1 (1.5-2)

Project: SWMU NO.14

Collection Date: 7/16/2012 4:20:00 PM

Lab ID: 1207748-002

Matrix: SOIL

Received Date: 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-----------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 4-Nitroaniline                         | ND     | 2.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Nitrobenzene                           | ND     | 2.5      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 2-Nitrophenol                          | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 4-Nitrophenol                          | ND     | 1.3      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Pentachlorophenol                      | ND     | 2.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Phenanthrene                           | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Phenol                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Pyrene                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Pyridine                               | ND     | 2.5      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 2,4,5-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| 2,4,6-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/26/2012 7:04:57 PM |
| Surr: 2,4,6-Tribromophenol             | 93.8   | 20.1-121 |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| Surr: 2-Fluorobiphenyl                 | 77.9   | 19-133   |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| Surr: 2-Fluorophenol                   | 75.9   | 20.2-108 |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| Surr: 4-Terphenyl-d14                  | 91.3   | 18.9-115 |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| Surr: Nitrobenzene-d5                  | 81.4   | 20.8-123 |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| Surr: Phenol-d5                        | 67.7   | 19.8-115 |      | %REC      | 1  | 7/26/2012 7:04:57 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS         |
| Benzene                                | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Toluene                                | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Ethylbenzene                           | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Xylenes, Total                         | ND     | 1.74     |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Naphthalene                            | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1-Methylnaphthalene                    | ND     | 3.48     |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 2-Methylnaphthalene                    | ND     | 3.48     |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Acetone                                | ND     | 8.71     |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Bromobenzene                           | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Bromodichloromethane                   | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Bromoform                              | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 2-Butanone                             | ND     | 1.74     |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Carbon tetrachloride                   | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Chlorobenzene                          | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Chloroethane                           | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Chloroform                             | ND     | 0.871    |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
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R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
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U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (1.5-2)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:20:00 PM

**Lab ID:** 1207748-002

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL    | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|-------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |       |      |           |    | Analyst: MMS         |
| Chloromethane                          | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 2-Chlorotoluene                        | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Carbon disulfide                       | ND     | 1.74  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 4-Chlorotoluene                        | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| cis-1,2-DCE                            | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| cis-1,3-Dichloropropene                | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 1.74  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Dibromochloromethane                   | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Dibromomethane                         | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Dichlorodifluoromethane                | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1-Dichloroethane                     | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1-Dichloroethene                     | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2-Dichloropropane                    | ND     | 1.74  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,3-Dichloropropane                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 2,2-Dichloropropane                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1-Dichloropropene                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Hexachlorobutadiene                    | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Isopropylbenzene                       | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 4-Isopropyltoluene                     | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Methylene chloride                     | ND     | 8.71  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| n-Butylbenzene                         | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 2-Hexanone                             | ND     | 1.74  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| n-Propylbenzene                        | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| sec-Butylbenzene                       | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Styrene                                | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 4-Methyl-2-pentanone                   | ND     | 1.74  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| tert-Butylbenzene                      | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Tetrachloroethene (PCE)                | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| trans-1,2-DCE                          | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| trans-1,3-Dichloropropene              | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Trichloroethene (TCE)                  | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Trichlorofluoromethane                 | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.871 |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (1.5-2)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:20:00 PM

**Lab ID:** 1207748-002

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|--------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: MMS         |
| Vinyl chloride                         | ND     | 0.871  |      | µg/Kg-dry | 1  | 7/18/2012 4:03:02 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.3   | 70-130 |      | %REC      | 1  | 7/18/2012 4:03:02 PM |
| Surr: 4-Bromofluorobenzene             | 92.4   | 70-130 |      | %REC      | 1  | 7/18/2012 4:03:02 PM |
| Surr: Dibromofluoromethane             | 96.4   | 70-130 |      | %REC      | 1  | 7/18/2012 4:03:02 PM |
| Surr: Toluene-d8                       | 102    | 70-130 |      | %REC      | 1  | 7/18/2012 4:03:02 PM |

**Qualifiers:**

- \* /X Value exceeds Maximum Contaminant Level.
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (10-12)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:30:00 PM

**Lab ID:** 1207748-003

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | 220    | 10       |      | mg/Kg | 1   | 7/20/2012 8:26:08 AM |
| Motor Oil Range Organics (MRO)                 | ND     | 50       |      | mg/Kg | 1   | 7/20/2012 8:26:08 AM |
| Surr: DNOP                                     | 114    | 77.6-140 |      | %REC  | 1   | 7/20/2012 8:26:08 AM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 7/21/2012 4:56:40 AM |
| Surr: BFB                                      | 124    | 69.7-121 | S    | %REC  | 1   | 7/21/2012 4:56:40 AM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | ND     | 0.033    |      | mg/Kg | 1   | 7/20/2012 3:01:39 PM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM |
| Barium                                         | 1100   | 5.0      |      | mg/Kg | 50  | 7/25/2012 5:56:42 PM |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM |
| Chromium                                       | 11     | 1.5      |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM |
| Cobalt                                         | 5.0    | 1.5      |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 7/31/2012 6:26:11 PM |
| Lead                                           | 2.5    | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM |
| Manganese                                      | 590    | 2.0      |      | mg/Kg | 20  | 7/30/2012 7:56:33 PM |
| Nickel                                         | 7.6    | 2.5      |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 7/30/2012 7:53:56 PM |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 7/25/2012 5:47:33 PM |
| Vanadium                                       | 24     | 12       |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| Zinc                                           | 20     | 12       |      | mg/Kg | 5   | 7/26/2012 8:35:53 PM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 7/26/2012 7:34:47 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (10-12)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:30:00 PM

**Lab ID:** 1207748-003

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Di-n-octyl phthalate                   | ND     | 0.25 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 1-Methylnaphthalene                    | 0.49   | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 7/26/2012 7:34:47 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (10-12)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:30:00 PM

**Lab ID:** 1207748-003

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-----------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Phenanthrene                           | 0.57   | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Phenol                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Pyridine                               | ND     | 0.50     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/26/2012 7:34:47 PM |
| Surr: 2,4,6-Tribromophenol             | 81.4   | 20.1-121 |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| Surr: 2-Fluorobiphenyl                 | 79.0   | 19-133   |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| Surr: 2-Fluorophenol                   | 66.6   | 20.2-108 |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| Surr: 4-Terphenyl-d14                  | 75.6   | 18.9-115 |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| Surr: Nitrobenzene-d5                  | 77.7   | 20.8-123 |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| Surr: Phenol-d5                        | 72.5   | 19.8-115 |      | %REC      | 1  | 7/26/2012 7:34:47 PM |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS         |
| Benzene                                | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Toluene                                | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Ethylbenzene                           | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Xylenes, Total                         | ND     | 1.76     |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Methyl tert-butyl ether (MTBE)         | 13.1   | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Naphthalene                            | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1-Methylnaphthalene                    | ND     | 3.52     |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 2-Methylnaphthalene                    | ND     | 3.52     |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Acetone                                | ND     | 8.81     |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Bromobenzene                           | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Bromodichloromethane                   | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Bromoform                              | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 2-Butanone                             | ND     | 1.76     |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Carbon tetrachloride                   | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Chlorobenzene                          | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Chloroethane                           | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Chloroform                             | ND     | 0.881    |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (10-12)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:30:00 PM

**Lab ID:** 1207748-003

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL    | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|-------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |       |      |           |    | Analyst: MMS         |
| Chloromethane                          | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 2-Chlorotoluene                        | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Carbon disulfide                       | ND     | 1.76  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 4-Chlorotoluene                        | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| cis-1,2-DCE                            | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| cis-1,3-Dichloropropene                | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 1.76  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Dibromochloromethane                   | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Dibromomethane                         | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Dichlorodifluoromethane                | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1-Dichloroethane                     | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1-Dichloroethene                     | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2-Dichloropropane                    | ND     | 1.76  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,3-Dichloropropane                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 2,2-Dichloropropane                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1-Dichloropropene                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Hexachlorobutadiene                    | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Isopropylbenzene                       | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 4-Isopropyltoluene                     | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Methylene chloride                     | ND     | 8.81  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| n-Butylbenzene                         | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 2-Hexanone                             | ND     | 1.76  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| n-Propylbenzene                        | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| sec-Butylbenzene                       | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Styrene                                | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 4-Methyl-2-pentanone                   | ND     | 1.76  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| tert-Butylbenzene                      | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Tetrachloroethene (PCE)                | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| trans-1,2-DCE                          | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| trans-1,3-Dichloropropene              | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Trichloroethene (TCE)                  | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Trichlorofluoromethane                 | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.881 |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207748

Date Reported: 8/3/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (10-12)

**Project:** SWMU NO.14

**Collection Date:** 7/16/2012 4:30:00 PM

**Lab ID:** 1207748-003

**Matrix:** SOIL

**Received Date:** 7/18/2012 9:15:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed        |
|----------------------------------------|--------|--------|------|-----------|----|----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: MMS         |
| Vinyl chloride                         | ND     | 0.881  |      | µg/Kg-dry | 1  | 7/18/2012 4:33:06 PM |
| Surr: 1,2-Dichloroethane-d4            | 99.4   | 70-130 |      | %REC      | 1  | 7/18/2012 4:33:06 PM |
| Surr: 4-Bromofluorobenzene             | 87.2   | 70-130 |      | %REC      | 1  | 7/18/2012 4:33:06 PM |
| Surr: Dibromofluoromethane             | 99.4   | 70-130 |      | %REC      | 1  | 7/18/2012 4:33:06 PM |
| Surr: Toluene-d8                       | 101    | 70-130 |      | %REC      | 1  | 7/18/2012 4:33:06 PM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com  
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

**Client:** HALL ENVIRONMENTAL ANALYSIS LAB  
**Address:** 4901 HAWKINS NE SUITE D  
ALBUQUERQUE, NM 87109  
**Attn:** ANDY FREEMAN

**Batch #:** 120720030  
**Project Name:** 1207748

## Analytical Results Report

|                         |                                  |                      |           |                           |                   |
|-------------------------|----------------------------------|----------------------|-----------|---------------------------|-------------------|
| <b>Sample Number</b>    | 120720030-001                    | <b>Sampling Date</b> | 7/16/2012 | <b>Date/Time Received</b> | 7/20/2012 1:15 PM |
| <b>Client Sample ID</b> | 1207748-001D / SWMU 14-1 (0-0.5) | <b>Sampling Time</b> | 4:15 PM   |                           |                   |
| <b>Matrix</b>           | Soil                             |                      |           |                           |                   |
| <b>Comments</b>         |                                  |                      |           |                           |                   |

| Parameter | Result | Units | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|-------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg | 0.01 | 7/30/2012     | CRW     | EPA 335.4 |           |

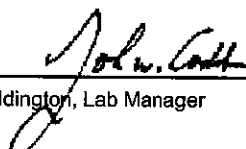
|                         |                                  |                      |           |                           |                   |
|-------------------------|----------------------------------|----------------------|-----------|---------------------------|-------------------|
| <b>Sample Number</b>    | 120720030-002                    | <b>Sampling Date</b> | 7/16/2012 | <b>Date/Time Received</b> | 7/20/2012 1:15 PM |
| <b>Client Sample ID</b> | 1207748-002D / SWMU 14-1 (1.5-2) | <b>Sampling Time</b> | 4:20 PM   |                           |                   |
| <b>Matrix</b>           | Soil                             |                      |           |                           |                   |
| <b>Comments</b>         |                                  |                      |           |                           |                   |

| Parameter | Result | Units | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|-------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg | 0.01 | 7/30/2012     | CRW     | EPA 335.4 |           |

|                         |                                  |                      |           |                           |                   |
|-------------------------|----------------------------------|----------------------|-----------|---------------------------|-------------------|
| <b>Sample Number</b>    | 120720030-003                    | <b>Sampling Date</b> | 7/16/2012 | <b>Date/Time Received</b> | 7/20/2012 1:15 PM |
| <b>Client Sample ID</b> | 1207748-003D / SWMU 14-1 (10-12) | <b>Sampling Time</b> | 4:30 PM   |                           |                   |
| <b>Matrix</b>           | Soil                             |                      |           |                           |                   |
| <b>Comments</b>         |                                  |                      |           |                           |                   |

| Parameter | Result | Units | PQL  | Analysis Date | Analyst | Method    | Qualifier |
|-----------|--------|-------|------|---------------|---------|-----------|-----------|
| Cyanide   | ND     | mg/Kg | 0.01 | 7/30/2012     | CRW     | EPA 335.4 |           |

Authorized Signature

  
John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level  
ND Not Detected  
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.  
The results reported relate only to the samples indicated.  
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C596  
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Thursday, August 02, 2012

Page 1 of 1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                                |           |                          |           |             |                                                   |          |              |      |          |      |
|--------------------------------|-----------|--------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                      | MB-2911   | SampType: MBLK           |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                     | PBS       | Batch ID: 2911           |           |             | RunNo: 4133                                       |          |              |      |          |      |
| Prep Date:                     | 7/19/2012 | Analysis Date: 7/19/2012 |           |             | SeqNo: 118627                                     |          | Units: mg/Kg |      |          |      |
| Analyte                        | Result    | PQL                      | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND        | 10                       |           |             |                                                   |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND        | 50                       |           |             |                                                   |          |              |      |          |      |
| Surr: DNOP                     | 11        |                          | 10.00     |             | 114                                               | 77.6     | 140          |      |          |      |

|                             |           |     |                          |             |                                                   |          |              |      |          |      |
|-----------------------------|-----------|-----|--------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | LCS-2911  |     | SampType: LCS            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | LCSS      |     | Batch ID: 2911           |             | RunNo: 4133                                       |          |              |      |          |      |
| Prep Date:                  | 7/19/2012 |     | Analysis Date: 7/19/2012 |             | SeqNo: 118783                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result    | PQL | SPK value                | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 45        | 10  | 50.00                    | 0           | 90.1                                              | 52.6     | 130          |      |          |      |
| Surr: DNOP                  | 4.6       |     | 5.000                    |             | 91.0                                              | 77.6     | 140          |      |          |      |

|                             |                   |                          |           |             |                                                   |          |              |      |          |      |
|-----------------------------|-------------------|--------------------------|-----------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1207748-001CMS    | SampType: MS             |           |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 14-1 (0-0.5) | Batch ID: 2911           |           |             | RunNo: 4172                                       |          |              |      |          |      |
| Prep Date:                  | 7/19/2012         | Analysis Date: 7/20/2012 |           |             | SeqNo: 120061                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result            | PQL                      | SPK value | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 69                | 9.8                      | 49.21     | 33.03       | 73.8                                              | 57.2     | 146          |      |          |      |
| Surr: DNOP                  | 4.7               |                          | 4.921     |             | 95.0                                              | 77.6     | 140          |      |          |      |

|                             |                   |     |                          |             |                                                   |          |              |      |          |      |
|-----------------------------|-------------------|-----|--------------------------|-------------|---------------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                   | 1207748-001CMSD   |     | SampType: MSD            |             | TestCode: EPA Method 8015B: Diesel Range Organics |          |              |      |          |      |
| Client ID:                  | SWMU 14-1 (0-0.5) |     | Batch ID: 2911           |             | RunNo: 4172                                       |          |              |      |          |      |
| Prep Date:                  | 7/19/2012         |     | Analysis Date: 7/20/2012 |             | SeqNo: 120062                                     |          | Units: mg/Kg |      |          |      |
| Analyte                     | Result            | PQL | SPK value                | SPK Ref Val | %REC                                              | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 75                | 10  | 50.15                    | 33.03       | 83.6                                              | 57.2     | 146          | 7.81 | 24.5     |      |
| Surr: DNOP                  | 4.7               |     | 5.015                    |             | 94.2                                              | 77.6     | 140          | 0    | 0        |      |

### Qualifiers:

\* /X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                               |           |     |                          |             |                                            |          |              |      |          |      |
|-------------------------------|-----------|-----|--------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-2878   |     | SampType: MBLK           |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS       |     | Batch ID: 2878           |             | RunNo: 4160                                |          |              |      |          |      |
| Prep Date:                    | 7/18/2012 |     | Analysis Date: 7/19/2012 |             | SeqNo: 119360                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result    | PQL | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND        | 5.0 |                          |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 1000      |     | 1000                     |             | 103                                        | 69.7     | 121          |      |          |      |

|                               |           |     |                          |             |                                            |          |              |      |          |      |
|-------------------------------|-----------|-----|--------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-2878  |     | SampType: LCS            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS      |     | Batch ID: 2878           |             | RunNo: 4160                                |          |              |      |          |      |
| Prep Date:                    | 7/18/2012 |     | Analysis Date: 7/19/2012 |             | SeqNo: 119361                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result    | PQL | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 25        | 5.0 | 25.00                    | 0           | 101                                        | 85       | 115          |      |          |      |
| Surr: BFB                     | 1100      |     | 1000                     |             | 109                                        | 69.7     | 121          |      |          |      |

|                               |                |     |                          |             |                                            |          |              |      |          |      |
|-------------------------------|----------------|-----|--------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | 1207548-001AMS |     | SampType: MS             |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | BatchQC        |     | Batch ID: 2878           |             | RunNo: 4160                                |          |              |      |          |      |
| Prep Date:                    | 7/18/2012      |     | Analysis Date: 7/19/2012 |             | SeqNo: 119368                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result         | PQL | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23             | 4.7 | 23.39                    | 0           | 98.5                                       | 85.4     | 147          |      |          |      |
| Surr: BFB                     | 990            |     | 935.5                    |             | 106                                        | 69.7     | 121          |      |          |      |

|                               |                 |     |                |             |      |           |                                  |      |              |      |  |
|-------------------------------|-----------------|-----|----------------|-------------|------|-----------|----------------------------------|------|--------------|------|--|
| Sample ID                     | 1207548-001AMSD |     | SampType:      | MSD         |      | TestCode: | EPA Method 8015B: Gasoline Range |      |              |      |  |
| Client ID:                    | BatchQC         |     | Batch ID:      | 2878        |      | RunNo:    | 4160                             |      |              |      |  |
| Prep Date:                    | 7/18/2012       |     | Analysis Date: | 7/19/2012   |      | SeqNo:    | 119369                           |      | Units: mg/Kg |      |  |
| Analyte                       | Result          | PQL | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                        | %RPD | RPDLimit     | Qual |  |
| Gasoline Range Organics (GRO) | 23              | 4.8 | 23.85          | 0           | 95.0 | 85.4      | 147                              | 1.61 | 19.2         |      |  |
| Surr: BFB                     | 1000            |     | 954.2          |             | 109  | 69.7      | 121                              | 0    | 0            |      |  |

|                               |           |     |                          |             |                                            |          |              |      |          |      |
|-------------------------------|-----------|-----|--------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | MB-2915   |     | SampType: MBLK           |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | PBS       |     | Batch ID: 2915           |             | RunNo: 4189                                |          |              |      |          |      |
| Prep Date:                    | 7/19/2012 |     | Analysis Date: 7/21/2012 |             | SeqNo: 121067                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result    | PQL | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND        | 5.0 |                          |             |                                            |          |              |      |          |      |
| Surr: BFB                     | 1000      |     | 1000                     |             | 99.7                                       | 69.7     | 121          |      |          |      |

|                               |           |     |                          |             |                                            |          |              |      |          |      |
|-------------------------------|-----------|-----|--------------------------|-------------|--------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                     | LCS-2915  |     | SampType: LCS            |             | TestCode: EPA Method 8015B: Gasoline Range |          |              |      |          |      |
| Client ID:                    | LCSS      |     | Batch ID: 2915           |             | RunNo: 4189                                |          |              |      |          |      |
| Prep Date:                    | 7/19/2012 |     | Analysis Date: 7/21/2012 |             | SeqNo: 121068                              |          | Units: mg/Kg |      |          |      |
| Analyte                       | Result    | PQL | SPK value                | SPK Ref Val | %REC                                       | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 27        | 5.0 | 25.00                    | 0           | 109                                        | 85       | 115          |      |          |      |
| Surr: BFB                     | 1000      |     | 1000                     |             | 104                                        | 69.7     | 121          |      |          |      |

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ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                                |           |                |           |             |                                 |          |           |      |          |      |
|--------------------------------|-----------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                      | mb-2881   | SampType:      | MBLK      | TestCode:   | Method 8260B/5035LOW: VOLATILES |          |           |      |          |      |
| Client ID:                     | PBS       | Batch ID:      | 2881      | RunNo:      | 4146                            |          |           |      |          |      |
| Prep Date:                     | 7/18/2012 | Analysis Date: | 7/18/2012 | SeqNo:      | 118507                          | Units:   | µg/Kg-dry |      |          |      |
| Analyte                        | Result    | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                        | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Toluene                        | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Ethylbenzene                   | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Xylenes, Total                 | ND        | 2.00           |           |             |                                 |          |           |      |          |      |
| Methyl tert-butyl ether (MTBE) | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2,4-Trimethylbenzene         | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,3,5-Trimethylbenzene         | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2-Dichloroethane (EDC)       | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2-Dibromoethane (EDB)        | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Naphthalene                    | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1-Methylnaphthalene            | ND        | 4.00           |           |             |                                 |          |           |      |          |      |
| 2-Methylnaphthalene            | ND        | 4.00           |           |             |                                 |          |           |      |          |      |
| Acetone                        | ND        | 10.0           |           |             |                                 |          |           |      |          |      |
| Bromobenzene                   | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Bromodichloromethane           | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Bromoform                      | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 2-Butanone                     | ND        | 2.00           |           |             |                                 |          |           |      |          |      |
| Carbon tetrachloride           | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Chlorobenzene                  | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Chloroethane                   | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Chloroform                     | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Chloromethane                  | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 2-Chlorotoluene                | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Carbon disulfide               | ND        | 2.00           |           |             |                                 |          |           |      |          |      |
| 4-Chlorotoluene                | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| cis-1,2-DCE                    | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| cis-1,3-Dichloropropene        | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2-Dibromo-3-chloropropane    | ND        | 2.00           |           |             |                                 |          |           |      |          |      |
| Dibromochloromethane           | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Dibromomethane                 | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Dichlorodifluoromethane        | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,1-Dichloroethane             | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,1-Dichloroethene             | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,2-Dichloropropane            | ND        | 2.00           |           |             |                                 |          |           |      |          |      |
| 1,3-Dichloropropane            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 2,2-Dichloropropane            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| 1,1-Dichloropropene            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |
| Hexachlorobutadiene            | ND        | 1.00           |           |             |                                 |          |           |      |          |      |

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

**Client:** Western Refining Southwest, Gallup

**Project:** SWMU NO.14

|                             |           |      |                          |             |                                           |          |                  |      |          |      |
|-----------------------------|-----------|------|--------------------------|-------------|-------------------------------------------|----------|------------------|------|----------|------|
| Sample ID                   | mb-2881   |      | SampType: MBLK           |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |                  |      |          |      |
| Client ID:                  | PBS       |      | Batch ID: 2881           |             | RunNo: 4146                               |          |                  |      |          |      |
| Prep Date:                  | 7/18/2012 |      | Analysis Date: 7/18/2012 |             | SeqNo: 118507                             |          | Units: µg/Kg-dry |      |          |      |
| Analyte                     | Result    | PQL  | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit        | %RPD | RPDLimit | Qual |
| Isopropylbenzene            | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 4-Isopropyltoluene          | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Methylene chloride          | ND        | 10.0 |                          |             |                                           |          |                  |      |          |      |
| n-Butylbenzene              | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 2-Hexanone                  | ND        | 2.00 |                          |             |                                           |          |                  |      |          |      |
| n-Propylbenzene             | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| sec-Butylbenzene            | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Styrene                     | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 4-Methyl-2-pentanone        | ND        | 2.00 |                          |             |                                           |          |                  |      |          |      |
| tert-Butylbenzene           | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,1,1,2-Tetrachloroethane   | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,1,2,2-Tetrachloroethane   | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Tetrachloroethene (PCE)     | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| trans-1,2-DCE               | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| trans-1,3-Dichloropropene   | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,2,3-Trichlorobenzene      | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,2,4-Trichlorobenzene      | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,1,1-Trichloroethane       | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,1,2-Trichloroethane       | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Trichloroethene (TCE)       | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Trichlorofluoromethane      | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| 1,2,3-Trichloropropane      | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Vinyl chloride              | ND        | 1.00 |                          |             |                                           |          |                  |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 55.0      |      | 50.00                    |             | 110                                       | 70       | 130              |      |          |      |
| Surr: 4-Bromofluorobenzene  | 46.9      |      | 50.00                    |             | 93.9                                      | 70       | 130              |      |          |      |
| Surr: Dibromofluoromethane  | 50.6      |      | 50.00                    |             | 101                                       | 70       | 130              |      |          |      |
| Surr: Toluene-d8            | 47.4      |      | 50.00                    |             | 94.7                                      | 70       | 130              |      |          |      |

|                             |           |      |                          |             |                                           |          |                  |      |          |      |
|-----------------------------|-----------|------|--------------------------|-------------|-------------------------------------------|----------|------------------|------|----------|------|
| Sample ID                   | lcs-2881  |      | SampType: LCS            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |                  |      |          |      |
| Client ID:                  | LCSS      |      | Batch ID: 2881           |             | RunNo: 4146                               |          |                  |      |          |      |
| Prep Date:                  | 7/18/2012 |      | Analysis Date: 7/18/2012 |             | SeqNo: 118508                             |          | Units: µg/Kg-dry |      |          |      |
| Analyte                     | Result    | PQL  | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit        | %RPD | RPDLimit | Qual |
| Benzene                     | 10.2      | 1.00 | 10.00                    | 0           | 102                                       | 60       | 140              |      |          |      |
| Toluene                     | 10.8      | 1.00 | 10.00                    | 0           | 108                                       | 60       | 140              |      |          |      |
| Chlorobenzene               | 11.1      | 1.00 | 10.00                    | 0           | 111                                       | 60       | 140              |      |          |      |
| 1,1-Dichloroethene          | 11.7      | 1.00 | 10.00                    | 0           | 117                                       | 60       | 140              |      |          |      |
| Trichloroethene (TCE)       | 11.2      | 1.00 | 10.00                    | 0           | 112                                       | 60       | 140              |      |          |      |
| Surr: 1,2-Dichloroethane-d4 | 54.9      |      | 50.00                    |             | 110                                       | 70       | 130              |      |          |      |
| Surr: 4-Bromofluorobenzene  | 50.2      |      | 50.00                    |             | 100                                       | 70       | 130              |      |          |      |
| Surr: Dibromofluoromethane  | 51.4      |      | 50.00                    |             | 103                                       | 70       | 130              |      |          |      |

### Qualifiers:

\* / X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                  |           |     |                          |             |                                           |          |                  |      |          |      |
|------------------|-----------|-----|--------------------------|-------------|-------------------------------------------|----------|------------------|------|----------|------|
| Sample ID        | lcs-2881  |     | SampType: LCS            |             | TestCode: Method 8260B/5035LOW: VOLATILES |          |                  |      |          |      |
| Client ID:       | LCSS      |     | Batch ID: 2881           |             | RunNo: 4146                               |          |                  |      |          |      |
| Prep Date:       | 7/18/2012 |     | Analysis Date: 7/18/2012 |             | SeqNo: 118508                             |          | Units: µg/Kg-dry |      |          |      |
| Analyte          | Result    | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit        | %RPD | RPDLimit | Qual |
| Surr: Toluene-d8 | 50.3      |     | 50.00                    |             | 101                                       | 70       | 130              |      |          |      |

### Qualifiers:

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E Value above quantitation range  
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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                             |           |                |           |             |                                 |          |           |      |          |      |
|-----------------------------|-----------|----------------|-----------|-------------|---------------------------------|----------|-----------|------|----------|------|
| Sample ID                   | mb-2996   | SampType:      | MBLK      | TestCode:   | EPA Method 8270C: Semivolatiles |          |           |      |          |      |
| Client ID:                  | PBS       | Batch ID:      | 2996      | RunNo:      | 4454                            |          |           |      |          |      |
| Prep Date:                  | 7/24/2012 | Analysis Date: | 7/26/2012 | SeqNo:      | 124345                          | Units:   | mg/Kg     |      |          |      |
| Analyte                     | Result    | PQL            | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene                | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Acenaphthylene              | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Aniline                     | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Anthracene                  | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Azobenzene                  | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benz(a)anthracene           | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benzo(a)pyrene              | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benzo(b)fluoranthene        | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benzo(g,h,i)perylene        | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benzo(k)fluoranthene        | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Benzoic acid                | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| Benzyl alcohol              | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Bis(2-chloroethoxy)methane  | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Bis(2-chloroethyl)ether     | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Bis(2-chloroisopropyl)ether | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Bis(2-ethylhexyl)phthalate  | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| 4-Bromophenyl phenyl ether  | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Butyl benzyl phthalate      | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Carbazole                   | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 4-Chloro-3-methylphenol     | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| 4-Chloroaniline             | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| 2-Chloronaphthalene         | ND        | 0.25           |           |             |                                 |          |           |      |          |      |
| 2-Chlorophenol              | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 4-Chlorophenyl phenyl ether | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Chrysene                    | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Di-n-butyl phthalate        | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| Di-n-octyl phthalate        | ND        | 0.25           |           |             |                                 |          |           |      |          |      |
| Dibenz(a,h)anthracene       | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Dibenzofuran                | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 1,2-Dichlorobenzene         | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 1,3-Dichlorobenzene         | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 1,4-Dichlorobenzene         | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 3,3'-Dichlorobenzidine      | ND        | 0.25           |           |             |                                 |          |           |      |          |      |
| Diethyl phthalate           | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| Dimethyl phthalate          | ND        | 0.20           |           |             |                                 |          |           |      |          |      |
| 2,4-Dichlorophenol          | ND        | 0.40           |           |             |                                 |          |           |      |          |      |
| 2,4-Dimethylphenol          | ND        | 0.30           |           |             |                                 |          |           |      |          |      |
| 4,6-Dinitro-2-methylphenol  | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| 2,4-Dinitrophenol           | ND        | 0.40           |           |             |                                 |          |           |      |          |      |
| 2,4-Dinitrotoluene          | ND        | 0.50           |           |             |                                 |          |           |      |          |      |
| 2,6-Dinitrotoluene          | ND        | 0.50           |           |             |                                 |          |           |      |          |      |

### Qualifiers:

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E Value above quantitation range  
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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                            |                  |      |                                 |             |                                                  |          |                     |      |          |      |
|----------------------------|------------------|------|---------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID                  | <b>mb-2996</b>   |      | SampType: <b>MBLK</b>           |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID:                 | <b>PBS</b>       |      | Batch ID: <b>2996</b>           |             | RunNo: <b>4454</b>                               |          |                     |      |          |      |
| Prep Date:                 | <b>7/24/2012</b> |      | Analysis Date: <b>7/26/2012</b> |             | SeqNo: <b>124345</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result           | PQL  | SPK value                       | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |
| Fluoranthene               | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Fluorene                   | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Hexachlorobenzene          | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Hexachlorobutadiene        | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Hexachlorocyclopentadiene  | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Hexachloroethane           | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Indeno(1,2,3-cd)pyrene     | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Isophorone                 | ND               | 0.50 |                                 |             |                                                  |          |                     |      |          |      |
| 1-Methylnaphthalene        | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 2-Methylnaphthalene        | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 2-Methylphenol             | ND               | 0.50 |                                 |             |                                                  |          |                     |      |          |      |
| 3+4-Methylphenol           | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| N-Nitrosodi-n-propylamine  | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| N-Nitrosodiphenylamine     | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Naphthalene                | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 2-Nitroaniline             | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 3-Nitroaniline             | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 4-Nitroaniline             | ND               | 0.40 |                                 |             |                                                  |          |                     |      |          |      |
| Nitrobenzene               | ND               | 0.50 |                                 |             |                                                  |          |                     |      |          |      |
| 2-Nitrophenol              | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 4-Nitrophenol              | ND               | 0.25 |                                 |             |                                                  |          |                     |      |          |      |
| Pentachlorophenol          | ND               | 0.40 |                                 |             |                                                  |          |                     |      |          |      |
| Phenanthrene               | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Phenol                     | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Pyrene                     | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Pyridine                   | ND               | 0.50 |                                 |             |                                                  |          |                     |      |          |      |
| 1,2,4-Trichlorobenzene     | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 2,4,5-Trichlorophenol      | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| 2,4,6-Trichlorophenol      | ND               | 0.20 |                                 |             |                                                  |          |                     |      |          |      |
| Surr: 2,4,6-Tribromophenol | 3.4              |      | 3.330                           |             | 102                                              | 20.1     | 121                 |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.3              |      | 1.670                           |             | 79.2                                             | 19       | 133                 |      |          |      |
| Surr: 2-Fluorophenol       | 2.2              |      | 3.330                           |             | 67.3                                             | 20.2     | 108                 |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.5              |      | 1.670                           |             | 87.9                                             | 18.9     | 115                 |      |          |      |
| Surr: Nitrobenzene-d5      | 1.3              |      | 1.670                           |             | 77.2                                             | 20.8     | 123                 |      |          |      |
| Surr: Phenol-d5            | 2.7              |      | 3.330                           |             | 82.4                                             | 19.8     | 115                 |      |          |      |

|            |                  |     |                                 |             |                                                  |          |                     |      |          |      |
|------------|------------------|-----|---------------------------------|-------------|--------------------------------------------------|----------|---------------------|------|----------|------|
| Sample ID  | <b>lcs-2996</b>  |     | SampType: <b>LCS</b>            |             | TestCode: <b>EPA Method 8270C: Semivolatiles</b> |          |                     |      |          |      |
| Client ID: | <b>LCSS</b>      |     | Batch ID: <b>2996</b>           |             | RunNo: <b>4454</b>                               |          |                     |      |          |      |
| Prep Date: | <b>7/24/2012</b> |     | Analysis Date: <b>7/26/2012</b> |             | SeqNo: <b>124346</b>                             |          | Units: <b>mg/Kg</b> |      |          |      |
| Analyte    | Result           | PQL | SPK value                       | SPK Ref Val | %REC                                             | LowLimit | HighLimit           | %RPD | RPDLimit | Qual |

### Qualifiers:

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RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                            |           |      |                          |             |                                           |          |              |      |          |      |
|----------------------------|-----------|------|--------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | Ics-2996  |      | SampType: LCS            |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | LCSS      |      | Batch ID: 2996           |             | RunNo: 4454                               |          |              |      |          |      |
| Prep Date:                 | 7/24/2012 |      | Analysis Date: 7/26/2012 |             | SeqNo: 124346                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result    | PQL  | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 1.2       | 0.20 | 1.670                    | 0           | 69.0                                      | 49.7     | 98.1         |      |          |      |
| 4-Chloro-3-methylphenol    | 2.3       | 0.50 | 3.330                    | 0           | 70.3                                      | 43.8     | 89.1         |      |          |      |
| 2-Chlorophenol             | 2.3       | 0.20 | 3.330                    | 0           | 67.9                                      | 41.1     | 96.9         |      |          |      |
| 1,4-Dichlorobenzene        | 1.0       | 0.20 | 1.670                    | 0           | 61.9                                      | 41       | 97.4         |      |          |      |
| 2,4-Dinitrotoluene         | 1.4       | 0.50 | 1.670                    | 0           | 80.8                                      | 44.4     | 104          |      |          |      |
| N-Nitrosodi-n-propylamine  | 1.2       | 0.20 | 1.670                    | 0           | 72.1                                      | 39.1     | 86.9         |      |          |      |
| 4-Nitrophenol              | 2.8       | 0.25 | 3.330                    | 0           | 82.9                                      | 44.2     | 107          |      |          |      |
| Pentachlorophenol          | 2.3       | 0.40 | 3.330                    | 0           | 68.1                                      | 36.2     | 80           |      |          |      |
| Phenol                     | 2.5       | 0.20 | 3.330                    | 0           | 73.9                                      | 42.7     | 92.7         |      |          |      |
| Pyrene                     | 1.0       | 0.20 | 1.670                    | 0           | 62.2                                      | 34.7     | 98.8         |      |          |      |
| 1,2,4-Trichlorobenzene     | 1.2       | 0.20 | 1.670                    | 0           | 72.4                                      | 37.8     | 98.3         |      |          |      |
| Surr: 2,4,6-Tribromophenol | 2.8       |      | 3.330                    |             | 82.7                                      | 20.1     | 121          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 1.3       |      | 1.670                    |             | 75.6                                      | 19       | 133          |      |          |      |
| Surr: 2-Fluorophenol       | 2.2       |      | 3.330                    |             | 66.8                                      | 20.2     | 108          |      |          |      |
| Surr: 4-Terphenyl-d14      | 1.3       |      | 1.670                    |             | 78.1                                      | 18.9     | 115          |      |          |      |
| Surr: Nitrobenzene-d5      | 1.3       |      | 1.670                    |             | 77.8                                      | 20.8     | 123          |      |          |      |
| Surr: Phenol-d5            | 2.5       |      | 3.330                    |             | 74.7                                      | 19.8     | 115          |      |          |      |

|                            |                |     |                          |             |                                           |          |              |      |          |      |
|----------------------------|----------------|-----|--------------------------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1207666-001Ams |     | SampType: MS             |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | BatchQC        |     | Batch ID: 2996           |             | RunNo: 4454                               |          |              |      |          |      |
| Prep Date:                 | 7/24/2012      |     | Analysis Date: 7/26/2012 |             | SeqNo: 124359                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result         | PQL | SPK value                | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 6.3            | 1.0 | 8.322                    | 0           | 75.9                                      | 38.6     | 100          |      |          |      |
| 4-Chloro-3-methylphenol    | 14             | 2.5 | 16.59                    | 0           | 86.5                                      | 35.8     | 108          |      |          |      |
| 2-Chlorophenol             | 13             | 1.0 | 16.59                    | 0           | 79.4                                      | 48.2     | 96.1         |      |          |      |
| 1,4-Dichlorobenzene        | 6.0            | 1.0 | 8.322                    | 0           | 72.5                                      | 42.5     | 97.6         |      |          |      |
| 2,4-Dinitrotoluene         | 7.0            | 2.5 | 8.322                    | 0           | 84.0                                      | 51.2     | 108          |      |          |      |
| N-Nitrosodi-n-propylamine  | 7.0            | 1.0 | 8.322                    | 0           | 84.7                                      | 31.6     | 114          |      |          |      |
| 4-Nitrophenol              | 16             | 1.2 | 16.59                    | 0.3837      | 94.3                                      | 22.7     | 144          |      |          |      |
| Pentachlorophenol          | 9.8            | 2.0 | 16.59                    | 0           | 59.3                                      | 24       | 109          |      |          |      |
| Phenol                     | 17             | 1.0 | 16.59                    | 6.194       | 66.9                                      | 33.1     | 108          |      |          |      |
| Pyrene                     | 5.2            | 1.0 | 8.322                    | 0           | 62.5                                      | 42.7     | 98.9         |      |          |      |
| 1,2,4-Trichlorobenzene     | 6.1            | 1.0 | 8.322                    | 0           | 73.0                                      | 27.1     | 118          |      |          |      |
| Surr: 2,4,6-Tribromophenol | 15             |     | 16.59                    |             | 92.7                                      | 20.1     | 121          |      |          |      |
| Surr: 2-Fluorobiphenyl     | 6.6            |     | 8.322                    |             | 79.8                                      | 19       | 133          |      |          |      |
| Surr: 2-Fluorophenol       | 13             |     | 16.59                    |             | 75.7                                      | 20.2     | 108          |      |          |      |
| Surr: 4-Terphenyl-d14      | 6.3            |     | 8.322                    |             | 75.6                                      | 18.9     | 115          |      |          |      |
| Surr: Nitrobenzene-d5      | 6.7            |     | 8.322                    |             | 80.5                                      | 20.8     | 123          |      |          |      |
| Surr: Phenol-d5            | 15             |     | 16.59                    |             | 88.8                                      | 19.8     | 115          |      |          |      |

### Qualifiers:

\* / X Value exceeds Maximum Contaminant Level.  
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J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|                            |                 |                          |           |             |                                           |          |              |      |          |      |
|----------------------------|-----------------|--------------------------|-----------|-------------|-------------------------------------------|----------|--------------|------|----------|------|
| Sample ID                  | 1207666-001Amsd | SampType: MSD            |           |             | TestCode: EPA Method 8270C: Semivolatiles |          |              |      |          |      |
| Client ID:                 | BatchQC         | Batch ID: 2996           |           |             | RunNo: 4454                               |          |              |      |          |      |
| Prep Date:                 | 7/24/2012       | Analysis Date: 7/26/2012 |           |             | SeqNo: 124360                             |          | Units: mg/Kg |      |          |      |
| Analyte                    | Result          | PQL                      | SPK value | SPK Ref Val | %REC                                      | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Acenaphthene               | 6.2             | 1.0                      | 8.406     | 0           | 73.4                                      | 38.6     | 100          | 2.26 | 20       |      |
| 4-Chloro-3-methylphenol    | 14              | 2.5                      | 16.76     | 0           | 81.8                                      | 35.8     | 108          | 4.66 | 20       |      |
| 2-Chlorophenol             | 13              | 1.0                      | 16.76     | 0           | 79.6                                      | 48.2     | 96.1         | 1.28 | 20       |      |
| 1,4-Dichlorobenzene        | 6.2             | 1.0                      | 8.406     | 0           | 73.6                                      | 42.5     | 97.6         | 2.48 | 20       |      |
| 2,4-Dinitrotoluene         | 6.8             | 2.5                      | 8.406     | 0           | 81.0                                      | 51.2     | 108          | 2.63 | 20       |      |
| N-Nitrosodi-n-propylamine  | 7.4             | 1.0                      | 8.406     | 0           | 88.4                                      | 31.6     | 114          | 5.25 | 20       |      |
| 4-Nitrophenol              | 15              | 1.3                      | 16.76     | 0.3837      | 86.4                                      | 22.7     | 144          | 7.52 | 20       |      |
| Pentachlorophenol          | 10              | 2.0                      | 16.76     | 0           | 61.0                                      | 24       | 109          | 3.78 | 20       |      |
| Phenol                     | 20              | 1.0                      | 16.76     | 6.194       | 81.0                                      | 33.1     | 108          | 13.4 | 20       |      |
| Pyrene                     | 4.8             | 1.0                      | 8.406     | 0           | 57.5                                      | 42.7     | 98.9         | 7.41 | 20       |      |
| 1,2,4-Trichlorobenzene     | 6.3             | 1.0                      | 8.406     | 0           | 74.7                                      | 27.1     | 118          | 3.30 | 20       |      |
| Surr: 2,4,6-Tribromophenol | 15              |                          | 16.76     |             | 88.4                                      | 20.1     | 121          | 0    | 0        |      |
| Surr: 2-Fluorobiphenyl     | 6.3             |                          | 8.406     |             | 75.1                                      | 19       | 133          | 0    | 0        |      |
| Surr: 2-Fluorophenol       | 14              |                          | 16.76     |             | 81.8                                      | 20.2     | 108          | 0    | 0        |      |
| Surr: 4-Terphenyl-d14      | 6.1             |                          | 8.406     |             | 72.3                                      | 18.9     | 115          | 0    | 0        |      |
| Surr: Nitrobenzene-d5      | 6.7             |                          | 8.406     |             | 79.6                                      | 20.8     | 123          | 0    | 0        |      |
| Surr: Phenol-d5            | 15              |                          | 16.76     |             | 88.2                                      | 19.8     | 115          | 0    | 0        |      |

### Qualifiers:

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J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|            |           |       |                          |             |                                    |          |              |      |          |      |
|------------|-----------|-------|--------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | MB-2919   |       | SampType: MBLK           |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | PBS       |       | Batch ID: 2919           |             | RunNo: 4199                        |          |              |      |          |      |
| Prep Date: | 7/19/2012 |       | Analysis Date: 7/20/2012 |             | SeqNo: 120246                      |          | Units: mg/Kg |      |          |      |
| Analyte    | Result    | PQL   | SPK value                | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercurv    | ND        | 0.033 |                          |             |                                    |          |              |      |          |      |

|            |           |       |                          |             |                                    |          |              |      |          |      |
|------------|-----------|-------|--------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | LCS-2919  |       | SampType: LCS            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | LCSS      |       | Batch ID: 2919           |             | RunNo: 4199                        |          |              |      |          |      |
| Prep Date: | 7/19/2012 |       | Analysis Date: 7/20/2012 |             | SeqNo: 120247                      |          | Units: mg/Kg |      |          |      |
| Analyte    | Result    | PQL   | SPK value                | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17      | 0.033 | 0.1667                   | 0           | 102                                | 80       | 120          |      |          |      |

|            |                |       |                          |             |      |                                    |           |              |          |      |
|------------|----------------|-------|--------------------------|-------------|------|------------------------------------|-----------|--------------|----------|------|
| Sample ID  | 1207796-008AMS |       | SampType: MS             |             |      | TestCode: EPA Method 7471: Mercury |           |              |          |      |
| Client ID: | BatchQC        |       | Batch ID: 2919           |             |      | RunNo: 4199                        |           |              |          |      |
| Prep Date: | 7/19/2012      |       | Analysis Date: 7/20/2012 |             |      | SeqNo: 120251                      |           | Units: mg/Kg |          |      |
| Analyte    | Result         | PQL   | SPK value                | SPK Ref Val | %REC | LowLimit                           | HighLimit | %RPD         | RPDLimit | Qual |
| Mercury    | 0.16           | 0.033 | 0.1661                   | 0           | 98.8 | 75                                 | 125       |              |          |      |

|            |                 |       |                          |             |                                    |          |              |      |          |      |
|------------|-----------------|-------|--------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID  | 1207796-008AMSD |       | SampType: MSD            |             | TestCode: EPA Method 7471: Mercury |          |              |      |          |      |
| Client ID: | BatchQC         |       | Batch ID: 2919           |             | RunNo: 4199                        |          |              |      |          |      |
| Prep Date: | 7/19/2012       |       | Analysis Date: 7/20/2012 |             | SeqNo: 120252                      |          | Units: mg/Kg |      |          |      |
| Analyte    | Result          | PQL   | SPK value                | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.16            | 0.033 | 0.1643                   | 0           | 98.0                               | 75       | 125          | 1.87 | 20       |      |

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|            |           |      |                |             |      |           |                               |      |              |      |
|------------|-----------|------|----------------|-------------|------|-----------|-------------------------------|------|--------------|------|
| Sample ID  | MB-2958   |      | SampType:      | MBLK        |      | TestCode: | EPA Method 6010B: Soil Metals |      |              |      |
| Client ID: | PBS       |      | Batch ID:      | 2958        |      | RunNo:    | 4414                          |      |              |      |
| Prep Date: | 7/22/2012 |      | Analysis Date: | 7/25/2012   |      | SeqNo:    | 123218                        |      | Units: mg/Kg |      |
| Analyte    | Result    | PQL  | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                     | %RPD | RPDLimit     | Qual |
| Arsenic    | ND        | 2.5  |                |             |      |           |                               |      |              |      |
| Barium     | ND        | 0.10 |                |             |      |           |                               |      |              |      |
| Cadmium    | ND        | 0.10 |                |             |      |           |                               |      |              |      |
| Chromium   | ND        | 0.30 |                |             |      |           |                               |      |              |      |
| Lead       | ND        | 0.25 |                |             |      |           |                               |      |              |      |
| Selenium   | ND        | 2.5  |                |             |      |           |                               |      |              |      |
| Silver     | ND        | 0.25 |                |             |      |           |                               |      |              |      |

|            |           |      |                |             |      |           |                               |      |              |      |
|------------|-----------|------|----------------|-------------|------|-----------|-------------------------------|------|--------------|------|
| Sample ID  | LCS-2958  |      | SampType:      | LCS         |      | TestCode: | EPA Method 6010B: Soil Metals |      |              |      |
| Client ID: | LCSS      |      | Batch ID:      | 2958        |      | RunNo:    | 4414                          |      |              |      |
| Prep Date: | 7/22/2012 |      | Analysis Date: | 7/25/2012   |      | SeqNo:    | 123219                        |      | Units: mg/Kg |      |
| Analyte    | Result    | PQL  | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                     | %RPD | RPDLimit     | Qual |
| Arsenic    | 25        | 2.5  | 25.00          | 0.8270      | 98.4 | 80        | 120                           |      |              |      |
| Barium     | 25        | 0.10 | 25.00          | 0           | 101  | 80        | 120                           |      |              |      |
| Cadmium    | 25        | 0.10 | 25.00          | 0           | 101  | 80        | 120                           |      |              |      |
| Chromium   | 25        | 0.30 | 25.00          | 0           | 99.0 | 80        | 120                           |      |              |      |
| Lead       | 25        | 0.25 | 25.00          | 0           | 101  | 80        | 120                           |      |              |      |
| Selenium   | 23        | 2.5  | 25.00          | 0           | 93.8 | 80        | 120                           |      |              |      |
| Silver     | 5.1       | 0.25 | 5.000          | 0           | 101  | 80        | 120                           |      |              |      |

|            |                |      |                |             |      |           |                               |      |              |      |
|------------|----------------|------|----------------|-------------|------|-----------|-------------------------------|------|--------------|------|
| Sample ID  | 1207556-001AMS |      | SampType:      | MS          |      | TestCode: | EPA Method 6010B: Soil Metals |      |              |      |
| Client ID: | BatchQC        |      | Batch ID:      | 2958        |      | RunNo:    | 4414                          |      |              |      |
| Prep Date: | 7/22/2012      |      | Analysis Date: | 7/25/2012   |      | SeqNo:    | 123222                        |      | Units: mg/Kg |      |
| Analyte    | Result         | PQL  | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                     | %RPD | RPDLimit     | Qual |
| Arsenic    | ND             | 2.5  | 24.80          | 0           | 0    | 75        | 125                           |      |              | S    |
| Barium     | 25             | 0.10 | 24.80          | 1.334       | 97.1 | 75        | 125                           |      |              |      |
| Cadmium    | 25             | 0.10 | 24.80          | 0           | 100  | 75        | 125                           |      |              |      |
| Chromium   | 34             | 0.30 | 24.80          | 9.377       | 100  | 75        | 125                           |      |              |      |
| Lead       | 71             | 0.25 | 24.80          | 46.37       | 99.3 | 75        | 125                           |      |              | E    |
| Selenium   | ND             | 2.5  | 24.80          | 0           | 0    | 75        | 125                           |      |              | S    |
| Silver     | 4.8            | 0.25 | 4.961          | 0           | 97.6 | 75        | 125                           |      |              |      |

|            |                 |      |                |             |      |           |                               |      |              |      |
|------------|-----------------|------|----------------|-------------|------|-----------|-------------------------------|------|--------------|------|
| Sample ID  | 1207556-001AMSD |      | SampType:      | MSD         |      | TestCode: | EPA Method 6010B: Soil Metals |      |              |      |
| Client ID: | BatchQC         |      | Batch ID:      | 2958        |      | RunNo:    | 4414                          |      |              |      |
| Prep Date: | 7/22/2012       |      | Analysis Date: | 7/25/2012   |      | SeqNo:    | 123225                        |      | Units: mg/Kg |      |
| Analyte    | Result          | PQL  | SPK value      | SPK Ref Val | %REC | LowLimit  | HighLimit                     | %RPD | RPDLimit     | Qual |
| Arsenic    | ND              | 2.5  | 24.83          | 0           | 0    | 75        | 125                           | 0    | 20           | S    |
| Barium     | 25              | 0.10 | 24.83          | 1.334       | 95.3 | 75        | 125                           | 1.65 | 20           |      |
| Cadmium    | 24              | 0.10 | 24.83          | 0           | 98.3 | 75        | 125                           | 1.75 | 20           |      |

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

|            |                 |                |           |             |                               |          |           |      |          |      |
|------------|-----------------|----------------|-----------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Sample ID  | 1207556-001AMSD | SampType:      | MSD       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
| Client ID: | BatchQC         | Batch ID:      | 2958      | RunNo:      | 4414                          |          |           |      |          |      |
| Prep Date: | 7/22/2012       | Analysis Date: | 7/25/2012 | SeqNo:      | 123225                        | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result          | PQL            | SPK value | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chromium   | 32              | 0.30           | 24.83     | 9.377       | 92.7                          | 75       | 125       | 5.72 | 20       |      |
| Lead       | 70              | 0.25           | 24.83     | 46.37       | 93.7                          | 75       | 125       | 1.95 | 20       | E    |
| Selenium   | ND              | 2.5            | 24.83     | 0           | 0                             | 75       | 125       | 0    | 20       | S    |
| Silver     | 4.8             | 0.25           | 4.966     | 0           | 95.9                          | 75       | 125       | 1.69 | 20       |      |

### Qualifiers:

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1207748

Received by/date:

*[Signature]*

07/18/12

Logged By: Ashley Gallegos

7/18/2012 9:15:00 AM

*[Signature]*

Completed By: Ashley Gallegos

7/18/2012 2:44:10 PM

*[Signature]*

Reviewed By:

JB 07/18/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA
6. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No ☐ Adjusted?
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

18. Additional remarks:

### 19. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.4     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: WESTERN REFINING, SOUTHWEST TEXAS

GALLUP REFINERY

Mailing Address: ROUTE 3 BOX 7

GALLUP, NM 87301

Phone #: 505-772-0217

email or Fax#: SCOTT CROUCH - RPS

QA/QC Package:  
☒ Standard ☐ Level 4 (Full Validation)

Accreditation  
☐ NELAP ☐ Other

EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: SWMU NO.14

Project #:

Project Manager: SCOTT CROUCH - RPS

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4

Container Type and #

Preservative Type

HEAL No. 1207748

Date

Time

Matrix

Sample Request ID



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

| TPH (Method 418.1)          | EDB (Method 504.1)        | PAH's (8310 or 8270 SIMS)   | RCRA 8 Metals | Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) + TPH GRO | 8270 (Semi-VOA) | TPH MRO & DRO | METALS | Air Bubbles (Y or N) |
|-----------------------------|---------------------------|-----------------------------|---------------|----------------------------------------------------------------------------------------|------------------------------|-----------------------|-----------------|---------------|--------|----------------------|
| BTX + MTBE + TPH (Gas only) | BTX + MTBE + TMB's (8021) | TPH 8015B (GRO / DRO / MRO) |               |                                                                                        |                              |                       |                 |               |        |                      |

Remarks:

Received by: [Signature] Date: 07/18/12 Time: 09:15

Relinquished by: [Signature] Date: 7/17 Time: 0130

Relinquished by: [Signature] Date: 7/17 Time: 0130



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 22, 2012

Scott Crouch

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL:

FAX

RE: SWMU NO.14

OrderNo.: 1207900

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 10 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (0-0.5')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 11:25:00 AM

**Lab ID:** 1207900-001

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | 640    | 200      |      | mg/Kg | 20  | 7/21/2012 9:53:29 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 1000     |      | mg/Kg | 20  | 7/21/2012 9:53:29 PM |
| Surr: DNOP                                     | 0      | 77.6-140 | S    | %REC  | 20  | 7/21/2012 9:53:29 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 20       |      | mg/Kg | 4   | 7/25/2012 4:17:15 PM |
| Surr: BFB                                      | 99.8   | 84-116   |      | %REC  | 4   | 7/25/2012 4:17:15 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | 0.15   | 0.033    |      | mg/Kg | 1   | 8/2/2012 10:41:11 AM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Barium                                         | 920    | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:13:35 AM |
| Beryllium                                      | 0.77   | 0.75     |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Chromium                                       | 11     | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Cobalt                                         | 5.1    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Iron                                           | 13000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:16:02 AM |
| Lead                                           | 2.7    | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Manganese                                      | 600    | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:13:35 AM |
| Nickel                                         | 8.0    | 2.5      |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Vanadium                                       | 23     | 12       |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| Zinc                                           | 42     | 12       |      | mg/Kg | 5   | 8/5/2012 5:36:25 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 6:47:58 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (0-0.5')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 11:25:00 AM

**Lab ID:** 1207900-001

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Di-n-octyl phthalate                   | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 6:47:58 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (0-0.5')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 11:25:00 AM

**Lab ID:** 1207900-001

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-----------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 4-Nitroaniline                         | ND     | 2.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Nitrobenzene                           | ND     | 2.5      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 2-Nitrophenol                          | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 4-Nitrophenol                          | ND     | 1.3      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Pentachlorophenol                      | ND     | 2.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Phenanthrene                           | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Phenol                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Pyrene                                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Pyridine                               | ND     | 2.5      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 1,2,4-Trichlorobenzene                 | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 2,4,5-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| 2,4,6-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg     | 1  | 7/25/2012 6:47:58 PM  |
| Surr: 2,4,6-Tribromophenol             | 115    | 20.1-121 |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| Surr: 2-Fluorobiphenyl                 | 108    | 19-133   |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| Surr: 2-Fluorophenol                   | 99.8   | 20.2-108 |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| Surr: 4-Terphenyl-d14                  | 112    | 18.9-115 |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| Surr: Nitrobenzene-d5                  | 114    | 20.8-123 |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| Surr: Phenol-d5                        | 98.8   | 19.8-115 |      | %REC      | 1  | 7/25/2012 6:47:58 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS          |
| Benzene                                | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Toluene                                | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Ethylbenzene                           | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Xylenes, Total                         | ND     | 2.00     |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Naphthalene                            | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1-Methylnaphthalene                    | ND     | 3.99     |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 2-Methylnaphthalene                    | ND     | 3.99     |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Acetone                                | ND     | 9.99     |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Bromobenzene                           | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Bromodichloromethane                   | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Bromoform                              | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 2-Butanone                             | ND     | 2.00     |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Carbon tetrachloride                   | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Chlorobenzene                          | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Chloroethane                           | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Chloroform                             | ND     | 0.999    |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (0-0.5')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 11:25:00 AM

**Lab ID:** 1207900-001

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL    | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|-------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |       |      |           |    | Analyst: MMS          |
| Chloromethane                          | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 2-Chlorotoluene                        | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Carbon disulfide                       | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 4-Chlorotoluene                        | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| cis-1,2-DCE                            | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| cis-1,3-Dichloropropene                | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2-Dibromo-3-chloropropane            | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Dibromochloromethane                   | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Dibromomethane                         | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2-Dichlorobenzene                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,3-Dichlorobenzene                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,4-Dichlorobenzene                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Dichlorodifluoromethane                | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1-Dichloroethane                     | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1-Dichloroethene                     | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2-Dichloropropane                    | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,3-Dichloropropane                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 2,2-Dichloropropane                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1-Dichloropropene                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Hexachlorobutadiene                    | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Isopropylbenzene                       | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 4-Isopropyltoluene                     | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Methylene chloride                     | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| n-Butylbenzene                         | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 2-Hexanone                             | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| n-Propylbenzene                        | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| sec-Butylbenzene                       | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Styrene                                | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 4-Methyl-2-pentanone                   | ND     | 2.00  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| tert-Butylbenzene                      | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Tetrachloroethene (PCE)                | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| trans-1,2-DCE                          | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| trans-1,3-Dichloropropene              | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1,1-Trichloroethane                  | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,1,2-Trichloroethane                  | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Trichloroethene (TCE)                  | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Trichlorofluoromethane                 | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| 1,2,3-Trichloropropane                 | ND     | 0.999 |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (0-0.5')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 11:25:00 AM

**Lab ID:** 1207900-001

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|--------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: MMS          |
| Vinyl chloride                         | ND     | 0.999  |      | µg/Kg-dry | 1  | 7/20/2012 11:53:02 AM |
| Surr: 1,2-Dichloroethane-d4            | 107    | 70-130 |      | %REC      | 1  | 7/20/2012 11:53:02 AM |
| Surr: 4-Bromofluorobenzene             | 98.5   | 70-130 |      | %REC      | 1  | 7/20/2012 11:53:02 AM |
| Surr: Dibromofluoromethane             | 100    | 70-130 |      | %REC      | 1  | 7/20/2012 11:53:02 AM |
| Surr: Toluene-d8                       | 110    | 70-130 |      | %REC      | 1  | 7/20/2012 11:53:02 AM |

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (1.5-2')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:00:00 PM

**Lab ID:** 1207900-002

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | 280    | 10       |      | mg/Kg | 1   | 7/22/2012 5:54:53 PM |
| Motor Oil Range Organics (MRO)                 | 310    | 50       |      | mg/Kg | 1   | 7/22/2012 5:54:53 PM |
| Surr: DNOP                                     | 118    | 77.6-140 |      | %REC  | 1   | 7/22/2012 5:54:53 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 10       |      | mg/Kg | 2   | 7/25/2012 4:45:55 PM |
| Surr: BFB                                      | 99.2   | 84-116   |      | %REC  | 2   | 7/25/2012 4:45:55 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | 0.23   | 0.033    |      | mg/Kg | 1   | 8/2/2012 10:42:58 AM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 2.5      |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:38:48 PM  |
| Barium                                         | 560    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:18:46 AM |
| Beryllium                                      | 0.65   | 0.15     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Cadmium                                        | ND     | 0.10     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Chromium                                       | 19     | 0.30     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Cobalt                                         | 3.6    | 0.30     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Iron                                           | 11000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:21:13 AM |
| Lead                                           | 1.7    | 0.25     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Manganese                                      | 400    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:18:46 AM |
| Nickel                                         | 6.0    | 0.50     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Selenium                                       | ND     | 2.5      |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Silver                                         | ND     | 0.25     |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Vanadium                                       | 18     | 2.5      |      | mg/Kg | 1   | 8/5/2012 6:56:24 PM  |
| Zinc                                           | 42     | 12       |      | mg/Kg | 5   | 8/5/2012 5:38:48 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 7:18:07 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (1.5-2')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:00:00 PM

**Lab ID:** 1207900-002

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Chloronaphthalene                    | ND     | 1.2 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Di-n-octyl phthalate                   | ND     | 1.2 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.2 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 1-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Methylnaphthalene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |

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## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (1.5-2')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:00:00 PM

**Lab ID:** 1207900-002

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Nitroaniline                         | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Nitrobenzene                           | ND     | 2.5      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2-Nitrophenol                          | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 4-Nitrophenol                          | ND     | 1.2      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Pentachlorophenol                      | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Phenanthrene                           | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Phenol                                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Pyrene                                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Pyridine                               | ND     | 2.5      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4,5-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| 2,4,6-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 7:18:07 PM |
| Surr: 2,4,6-Tribromophenol             | 119    | 20.1-121 |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| Surr: 2-Fluorobiphenyl                 | 104    | 19-133   |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| Surr: 2-Fluorophenol                   | 94.9   | 20.2-108 |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| Surr: 4-Terphenyl-d14                  | 106    | 18.9-115 |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| Surr: Nitrobenzene-d5                  | 106    | 20.8-123 |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| Surr: Phenol-d5                        | 97.3   | 19.8-115 |      | %REC  | 1  | 7/25/2012 7:18:07 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |          |      |       |    | Analyst: RAA         |
| Benzene                                | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Toluene                                | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Ethylbenzene                           | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Naphthalene                            | ND     | 0.10     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1-Methylnaphthalene                    | ND     | 0.20     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 2-Methylnaphthalene                    | ND     | 0.20     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Acetone                                | ND     | 0.75     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Bromobenzene                           | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Bromodichloromethane                   | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Bromoform                              | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Bromomethane                           | ND     | 0.15     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 2-Butanone                             | ND     | 0.50     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Carbon disulfide                       | ND     | 0.50     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Carbon tetrachloride                   | ND     | 0.10     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Chlorobenzene                          | ND     | 0.050    |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Chloroethane                           | ND     | 0.10     |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (1.5-2')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:00:00 PM

**Lab ID:** 1207900-002

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL    | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|-------|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |       |      |       |    | Analyst: RAA         |
| Chloroform                         | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Chloromethane                      | ND     | 0.15  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 2-Chlorotoluene                    | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 4-Chlorotoluene                    | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| cis-1,2-DCE                        | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| cis-1,3-Dichloropropene            | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2-Dibromo-3-chloropropane        | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Dibromochloromethane               | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Dibromomethane                     | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2-Dichlorobenzene                | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,3-Dichlorobenzene                | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,4-Dichlorobenzene                | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Dichlorodifluoromethane            | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1-Dichloroethane                 | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1-Dichloroethene                 | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2-Dichloropropane                | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,3-Dichloropropane                | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 2,2-Dichloropropane                | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1-Dichloropropene                | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Hexachlorobutadiene                | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 2-Hexanone                         | ND     | 0.50  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Isopropylbenzene                   | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 4-Isopropyltoluene                 | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 4-Methyl-2-pentanone               | ND     | 0.50  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Methylene chloride                 | ND     | 0.15  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| n-Butylbenzene                     | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| n-Propylbenzene                    | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| sec-Butylbenzene                   | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Styrene                            | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| tert-Butylbenzene                  | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1,1,2-Tetrachloroethane          | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1,2,2-Tetrachloroethane          | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Tetrachloroethene (PCE)            | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| trans-1,2-DCE                      | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| trans-1,3-Dichloropropene          | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2,3-Trichlorobenzene             | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2,4-Trichlorobenzene             | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1,1-Trichloroethane              | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,1,2-Trichloroethane              | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Trichloroethene (TCE)              | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Trichlorofluoromethane             | ND     | 0.050 |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| 1,2,3-Trichloropropane             | ND     | 0.10  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |

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- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (1.5-2')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:00:00 PM

**Lab ID:** 1207900-002

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|--------|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: RAA         |
| Vinyl chloride                     | ND     | 0.050  |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Xylenes, Total                     | ND     | 0.10   |      | mg/Kg | 1  | 7/21/2012 7:35:24 AM |
| Surr: 1,2-Dichloroethane-d4        | 95.4   | 70-130 |      | %REC  | 1  | 7/21/2012 7:35:24 AM |
| Surr: 4-Bromofluorobenzene         | 99.6   | 70-130 |      | %REC  | 1  | 7/21/2012 7:35:24 AM |
| Surr: Dibromofluoromethane         | 93.6   | 70-130 |      | %REC  | 1  | 7/21/2012 7:35:24 AM |
| Surr: Toluene-d8                   | 101    | 70-130 |      | %REC  | 1  | 7/21/2012 7:35:24 AM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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- H Holding times for preparation or analysis exceeded
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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (8-10')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:15:00 PM

**Lab ID:** 1207900-003

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 2000   | 200      |      | mg/Kg | 20  | 7/21/2012 10:37:45 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 1000     |      | mg/Kg | 20  | 7/21/2012 10:37:45 PM |
| Surr: DNOP                                     | 0      | 77.6-140 | S    | %REC  | 20  | 7/21/2012 10:37:45 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 100      |      | mg/Kg | 20  | 7/25/2012 5:14:38 PM  |
| Surr: BFB                                      | 126    | 84-116   | S    | %REC  | 20  | 7/25/2012 5:14:38 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD          |
| Mercury                                        | 0.65   | 0.16     |      | mg/Kg | 5   | 8/2/2012 10:55:17 AM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Barium                                         | 380    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:23:59 AM  |
| Beryllium                                      | 0.80   | 0.75     |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Chromium                                       | 100    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Cobalt                                         | 5.6    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:26:26 AM  |
| Lead                                           | 11     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Manganese                                      | 350    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:23:59 AM  |
| Nickel                                         | 9.3    | 2.5      |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Vanadium                                       | 29     | 12       |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| Zinc                                           | 67     | 12       |      | mg/Kg | 5   | 8/5/2012 5:41:11 PM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | 2.0    | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Acenaphthylene                                 | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Aniline                                        | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Anthracene                                     | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Azobenzene                                     | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benz(a)anthracene                              | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzo(a)pyrene                                 | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzo(b)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzo(g,h,i)perylene                           | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzo(k)fluoranthene                           | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzoic acid                                   | ND     | 5.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Benzyl alcohol                                 | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 2.0      |      | mg/Kg | 1   | 7/25/2012 7:48:11 PM  |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (8-10')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:15:00 PM

**Lab ID:** 1207900-003

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Bromophenyl phenyl ether             | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Butyl benzyl phthalate                 | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Carbazole                              | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Chloro-3-methylphenol                | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Chloroaniline                        | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Chloronaphthalene                    | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Chlorophenol                         | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Chrysene                               | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Di-n-butyl phthalate                   | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Di-n-octyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Dibenz(a,h)anthracene                  | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Dibenzofuran                           | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 1,2-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 1,3-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 1,4-Dichlorobenzene                    | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Diethyl phthalate                      | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Dimethyl phthalate                     | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4-Dichlorophenol                     | ND     | 4.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4-Dimethylphenol                     | ND     | 3.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4-Dinitrophenol                      | ND     | 4.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,6-Dinitrotoluene                     | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Fluoranthene                           | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Fluorene                               | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Hexachlorobenzene                      | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Hexachlorobutadiene                    | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Hexachlorocyclopentadiene              | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Hexachloroethane                       | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Isophorone                             | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 1-Methylnaphthalene                    | 24     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Methylnaphthalene                    | 29     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Methylphenol                         | ND     | 5.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 3+4-Methylphenol                       | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| N-Nitrosodi-n-propylamine              | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| N-Nitrosodiphenylamine                 | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Naphthalene                            | 3.8    | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Nitroaniline                         | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (8-10')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:15:00 PM

**Lab ID:** 1207900-003

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Nitroaniline                         | ND     | 4.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Nitrobenzene                           | ND     | 5.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2-Nitrophenol                          | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 4-Nitrophenol                          | ND     | 2.5      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Pentachlorophenol                      | ND     | 4.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Phenanthrene                           | 4.8    | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Phenol                                 | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Pyrene                                 | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Pyridine                               | ND     | 5.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4,5-Trichlorophenol                  | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| 2,4,6-Trichlorophenol                  | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 7:48:11 PM |
| Surr: 2,4,6-Tribromophenol             | 98.8   | 20.1-121 |      | %REC  | 1  | 7/25/2012 7:48:11 PM |
| Surr: 2-Fluorobiphenyl                 | 111    | 19-133   |      | %REC  | 1  | 7/25/2012 7:48:11 PM |
| Surr: 2-Fluorophenol                   | 106    | 20.2-108 |      | %REC  | 1  | 7/25/2012 7:48:11 PM |
| Surr: 4-Terphenyl-d14                  | 121    | 18.9-115 | S    | %REC  | 1  | 7/25/2012 7:48:11 PM |
| Surr: Nitrobenzene-d5                  | 115    | 20.8-123 |      | %REC  | 1  | 7/25/2012 7:48:11 PM |
| Surr: Phenol-d5                        | 99.0   | 19.8-115 |      | %REC  | 1  | 7/25/2012 7:48:11 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |          |      |       |    | Analyst: RAA         |
| Benzene                                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Toluene                                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Ethylbenzene                           | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2,4-Trimethylbenzene                 | 6.2    | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Naphthalene                            | 3.3    | 2.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1-Methylnaphthalene                    | 18     | 4.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 2-Methylnaphthalene                    | 23     | 4.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Acetone                                | ND     | 15       |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Bromobenzene                           | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Bromodichloromethane                   | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Bromoform                              | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Bromomethane                           | ND     | 3.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 2-Butanone                             | ND     | 10       |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Carbon disulfide                       | ND     | 10       |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Carbon tetrachloride                   | ND     | 2.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Chlorobenzene                          | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Chloroethane                           | ND     | 2.0      |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (8-10')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:15:00 PM

**Lab ID:** 1207900-003

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: RAA         |
| Chloroform                         | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Chloromethane                      | ND     | 3.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| cis-1,2-DCE                        | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Dibromochloromethane               | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Dibromomethane                     | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1-Dichloroethane                 | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1-Dichloropropene                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Hexachlorobutadiene                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 2-Hexanone                         | ND     | 10  |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Isopropylbenzene                   | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Methylene chloride                 | ND     | 3.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| n-Butylbenzene                     | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| n-Propylbenzene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| sec-Butylbenzene                   | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Styrene                            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| tert-Butylbenzene                  | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| trans-1,2-DCE                      | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2,3-Trichlorobenzene             | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,1,2-Trichloroethane              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Trichloroethene (TCE)              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Trichlorofluoromethane             | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| 1,2,3-Trichloropropane             | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (8-10')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:15:00 PM

**Lab ID:** 1207900-003

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|--------|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: RAA         |
| Vinyl chloride                     | ND     | 1.0    |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Xylenes, Total                     | ND     | 2.0    |      | mg/Kg | 20 | 7/23/2012 2:09:24 PM |
| Surr: 1,2-Dichloroethane-d4        | 96.1   | 70-130 |      | %REC  | 20 | 7/23/2012 2:09:24 PM |
| Surr: 4-Bromofluorobenzene         | 85.4   | 70-130 |      | %REC  | 20 | 7/23/2012 2:09:24 PM |
| Surr: Dibromofluoromethane         | 105    | 70-130 |      | %REC  | 20 | 7/23/2012 2:09:24 PM |
| Surr: Toluene-d8                   | 105    | 70-130 |      | %REC  | 20 | 7/23/2012 2:09:24 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (12-14')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:30:00 PM

**Lab ID:** 1207900-004

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|------------------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)                    | 920    | 190      |      | mg/Kg | 20  | 7/21/2012 10:59:45 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 960      |      | mg/Kg | 20  | 7/21/2012 10:59:45 PM |
| Surr: DNOP                                     | 0      | 77.6-140 | S    | %REC  | 20  | 7/21/2012 10:59:45 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)                  | ND     | 100      |      | mg/Kg | 20  | 7/25/2012 5:43:27 PM  |
| Surr: BFB                                      | 129    | 84-116   | S    | %REC  | 20  | 7/25/2012 5:43:27 PM  |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD          |
| Mercury                                        | 0.28   | 0.033    |      | mg/Kg | 1   | 8/2/2012 10:48:13 AM  |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF          |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Barium                                         | 350    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:39:57 AM  |
| Beryllium                                      | ND     | 0.75     |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Chromium                                       | 110    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Cobalt                                         | 4.9    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Iron                                           | 14000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:42:25 AM  |
| Lead                                           | 12     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Manganese                                      | 570    | 2.0      |      | mg/Kg | 20  | 8/8/2012 10:39:57 AM  |
| Nickel                                         | 8.5    | 2.5      |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Vanadium                                       | 31     | 12       |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| Zinc                                           | 65     | 12       |      | mg/Kg | 5   | 8/5/2012 5:43:34 PM   |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                                   | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Acenaphthylene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Aniline                                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Anthracene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Azobenzene                                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benz(a)anthracene                              | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzo(a)pyrene                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzo(b)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzo(g,h,i)perylene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzo(k)fluoranthene                           | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzoic acid                                   | ND     | 2.5      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Benzyl alcohol                                 | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Bis(2-chloroethoxy)methane                     | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Bis(2-chloroethyl)ether                        | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |
| Bis(2-chloroisopropyl)ether                    | ND     | 1.0      |      | mg/Kg | 1   | 7/25/2012 8:18:17 PM  |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (12-14')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:30:00 PM

**Lab ID:** 1207900-004

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL  | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |     |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Bromophenyl phenyl ether             | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Butyl benzyl phthalate                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Carbazole                              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Chloro-3-methylphenol                | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Chloroaniline                        | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Chloronaphthalene                    | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Chlorophenol                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Chrysene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Di-n-butyl phthalate                   | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Di-n-octyl phthalate                   | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Dibenz(a,h)anthracene                  | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Dibenzofuran                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 1.3 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Diethyl phthalate                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Dimethyl phthalate                     | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4-Dichlorophenol                     | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4-Dimethylphenol                     | ND     | 1.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4-Dinitrophenol                      | ND     | 2.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,6-Dinitrotoluene                     | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Fluoranthene                           | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Fluorene                               | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Hexachlorobenzene                      | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Hexachlorobutadiene                    | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Hexachlorocyclopentadiene              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Hexachloroethane                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Isophorone                             | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 1-Methylnaphthalene                    | 9.2    | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Methylnaphthalene                    | 6.0    | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Methylphenol                         | ND     | 2.5 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 3+4-Methylphenol                       | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| N-Nitrosodi-n-propylamine              | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| N-Nitrosodiphenylamine                 | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Naphthalene                            | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Nitroaniline                         | ND     | 1.0 |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-3 (12-14')

Project: SWMU NO.14

Collection Date: 7/18/2012 12:30:00 PM

Lab ID: 1207900-004

Matrix: SOIL

Received Date: 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|----------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |       |    | Analyst: JDC         |
| 3-Nitroaniline                         | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Nitroaniline                         | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Nitrobenzene                           | ND     | 2.5      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2-Nitrophenol                          | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 4-Nitrophenol                          | ND     | 1.3      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Pentachlorophenol                      | ND     | 2.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Phenanthrene                           | 2.2    | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Phenol                                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Pyrene                                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Pyridine                               | ND     | 2.5      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4,5-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| 2,4,6-Trichlorophenol                  | ND     | 1.0      |      | mg/Kg | 1  | 7/25/2012 8:18:17 PM |
| Surr: 2,4,6-Tribromophenol             | 66.2   | 20.1-121 |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| Surr: 2-Fluorobiphenyl                 | 73.3   | 19-133   |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| Surr: 2-Fluorophenol                   | 73.3   | 20.2-108 |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| Surr: 4-Terphenyl-d14                  | 79.0   | 18.9-115 |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| Surr: Nitrobenzene-d5                  | 75.4   | 20.8-123 |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| Surr: Phenol-d5                        | 71.4   | 19.8-115 |      | %REC  | 1  | 7/25/2012 8:18:17 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |          |      |       |    | Analyst: RAA         |
| Benzene                                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Toluene                                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Ethylbenzene                           | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2,4-Trimethylbenzene                 | 4.3    | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Naphthalene                            | 2.2    | 2.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1-Methylnaphthalene                    | 16     | 4.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 2-Methylnaphthalene                    | 16     | 4.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Acetone                                | ND     | 15       |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Bromobenzene                           | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Bromodichloromethane                   | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Bromoform                              | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Bromomethane                           | ND     | 3.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 2-Butanone                             | ND     | 10       |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Carbon disulfide                       | ND     | 10       |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Carbon tetrachloride                   | ND     | 2.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Chlorobenzene                          | ND     | 1.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Chloroethane                           | ND     | 2.0      |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |

**Qualifiers:** \* / X Value exceeds Maximum Contaminant Level.  
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B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
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U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (12-14')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:30:00 PM

**Lab ID:** 1207900-004

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: RAA         |
| Chloroform                         | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Chloromethane                      | ND     | 3.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 2-Chlorotoluene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 4-Chlorotoluene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| cis-1,2-DCE                        | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| cis-1,3-Dichloropropene            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2-Dibromo-3-chloropropane        | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Dibromochloromethane               | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Dibromomethane                     | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,3-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,4-Dichlorobenzene                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Dichlorodifluoromethane            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1-Dichloroethane                 | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1-Dichloroethene                 | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2-Dichloropropane                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,3-Dichloropropane                | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 2,2-Dichloropropane                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1-Dichloropropene                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Hexachlorobutadiene                | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 2-Hexanone                         | ND     | 10  |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Isopropylbenzene                   | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 4-Isopropyltoluene                 | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 4-Methyl-2-pentanone               | ND     | 10  |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Methylene chloride                 | ND     | 3.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| n-Butylbenzene                     | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| n-Propylbenzene                    | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| sec-Butylbenzene                   | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Styrene                            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| tert-Butylbenzene                  | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Tetrachloroethene (PCE)            | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| trans-1,2-DCE                      | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| trans-1,3-Dichloropropene          | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2,3-Trichlorobenzene             | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2,4-Trichlorobenzene             | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1,1-Trichloroethane              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,1,2-Trichloroethane              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Trichloroethene (TCE)              | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Trichlorofluoromethane             | ND     | 1.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| 1,2,3-Trichloropropane             | ND     | 2.0 |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (12-14')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:30:00 PM

**Lab ID:** 1207900-004

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|--------|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: RAA         |
| Vinyl chloride                     | ND     | 1.0    |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Xylenes, Total                     | ND     | 2.0    |      | mg/Kg | 20 | 7/23/2012 3:06:28 PM |
| Surr: 1,2-Dichloroethane-d4        | 100    | 70-130 |      | %REC  | 20 | 7/23/2012 3:06:28 PM |
| Surr: 4-Bromofluorobenzene         | 81.4   | 70-130 |      | %REC  | 20 | 7/23/2012 3:06:28 PM |
| Surr: Dibromofluoromethane         | 109    | 70-130 |      | %REC  | 20 | 7/23/2012 3:06:28 PM |
| Surr: Toluene-d8                   | 105    | 70-130 |      | %REC  | 20 | 7/23/2012 3:06:28 PM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
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- RL Reporting Detection Limit
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (25.5-26')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:45:00 PM

**Lab ID:** 1207900-005

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | ND     | 9.7      |      | mg/Kg | 1   | 7/21/2012 4:43:23 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 49       |      | mg/Kg | 1   | 7/21/2012 4:43:23 PM |
| Surr: DNOP                                     | 116    | 77.6-140 |      | %REC  | 1   | 7/21/2012 4:43:23 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 7/25/2012 6:41:04 PM |
| Surr: BFB                                      | 99.9   | 84-116   |      | %REC  | 1   | 7/25/2012 6:41:04 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | ND     | 0.033    |      | mg/Kg | 1   | 8/2/2012 10:49:59 AM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Barium                                         | 630    | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:45:10 AM |
| Beryllium                                      | 1.1    | 0.75     |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Chromium                                       | 17     | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Cobalt                                         | 10     | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Iron                                           | 21000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:47:34 AM |
| Lead                                           | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Manganese                                      | 1400   | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:45:10 AM |
| Nickel                                         | 17     | 2.5      |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Vanadium                                       | 24     | 12       |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| Zinc                                           | 34     | 12       |      | mg/Kg | 5   | 8/5/2012 5:45:59 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 8:48:18 PM |

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- S Spike Recovery outside accepted recovery limits

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- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (25.5-26')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:45:00 PM

**Lab ID:** 1207900-005

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Di-n-octyl phthalate                   | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 8:48:18 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (25.5-26')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:45:00 PM

**Lab ID:** 1207900-005

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-----------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Phenol                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Pyridine                               | ND     | 0.50     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 8:48:18 PM  |
| Surr: 2,4,6-Tribromophenol             | 91.6   | 20.1-121 |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| Surr: 2-Fluorobiphenyl                 | 87.5   | 19-133   |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| Surr: 2-Fluorophenol                   | 86.6   | 20.2-108 |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| Surr: 4-Terphenyl-d14                  | 94.9   | 18.9-115 |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| Surr: Nitrobenzene-d5                  | 87.8   | 20.8-123 |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| Surr: Phenol-d5                        | 85.6   | 19.8-115 |      | %REC      | 1  | 7/25/2012 8:48:18 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS          |
| Benzene                                | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Toluene                                | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Ethylbenzene                           | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Xylenes, Total                         | ND     | 1.97     |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Naphthalene                            | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1-Methylnaphthalene                    | ND     | 3.94     |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 2-Methylnaphthalene                    | ND     | 3.94     |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Acetone                                | ND     | 9.85     |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Bromobenzene                           | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Bromodichloromethane                   | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Bromoform                              | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 2-Butanone                             | ND     | 1.97     |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Carbon tetrachloride                   | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Chlorobenzene                          | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Chloroethane                           | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Chloroform                             | ND     | 0.985    |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (25.5-26')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:45:00 PM

**Lab ID:** 1207900-005

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL    | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|-------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |       |      |           |    | Analyst: MMS          |
| Chloromethane                          | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 2-Chlorotoluene                        | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Carbon disulfide                       | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 4-Chlorotoluene                        | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| cis-1,2-DCE                            | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| cis-1,3-Dichloropropene                | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Dibromochloromethane                   | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Dibromomethane                         | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Dichlorodifluoromethane                | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1-Dichloroethane                     | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1-Dichloroethene                     | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2-Dichloropropane                    | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,3-Dichloropropane                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 2,2-Dichloropropane                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1-Dichloropropene                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Hexachlorobutadiene                    | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Isopropylbenzene                       | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 4-Isopropyltoluene                     | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Methylene chloride                     | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| n-Butylbenzene                         | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 2-Hexanone                             | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| n-Propylbenzene                        | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| sec-Butylbenzene                       | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Styrene                                | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 4-Methyl-2-pentanone                   | ND     | 1.97  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| tert-Butylbenzene                      | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Tetrachloroethene (PCE)                | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| trans-1,2-DCE                          | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| trans-1,3-Dichloropropene              | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1,1-Trichloroethane                  | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,1,2-Trichloroethane                  | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Trichloroethene (TCE)                  | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Trichlorofluoromethane                 | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| 1,2,3-Trichloropropane                 | ND     | 0.985 |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 (25.5-26')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 12:45:00 PM

**Lab ID:** 1207900-005

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|--------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: MMS          |
| Vinyl chloride                         | ND     | 0.985  |      | µg/Kg-dry | 1  | 7/20/2012 12:23:18 PM |
| Surr: 1,2-Dichloroethane-d4            | 97.0   | 70-130 |      | %REC      | 1  | 7/20/2012 12:23:18 PM |
| Surr: 4-Bromofluorobenzene             | 91.9   | 70-130 |      | %REC      | 1  | 7/20/2012 12:23:18 PM |
| Surr: Dibromofluoromethane             | 96.7   | 70-130 |      | %REC      | 1  | 7/20/2012 12:23:18 PM |
| Surr: Toluene-d8                       | 95.3   | 70-130 |      | %REC      | 1  | 7/20/2012 12:23:18 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (48-50')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:45:00 PM

**Lab ID:** 1207900-006

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF  | Date Analyzed        |
|------------------------------------------------|--------|----------|------|-------|-----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |     | Analyst: JMP         |
| Diesel Range Organics (DRO)                    | ND     | 10       |      | mg/Kg | 1   | 7/21/2012 5:05:39 PM |
| Motor Oil Range Organics (MRO)                 | ND     | 51       |      | mg/Kg | 1   | 7/21/2012 5:05:39 PM |
| Surr: DNOP                                     | 114    | 77.6-140 |      | %REC  | 1   | 7/21/2012 5:05:39 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |     | Analyst: NSB         |
| Gasoline Range Organics (GRO)                  | ND     | 5.0      |      | mg/Kg | 1   | 7/25/2012 7:09:50 PM |
| Surr: BFB                                      | 100    | 84-116   |      | %REC  | 1   | 7/25/2012 7:09:50 PM |
| <b>EPA METHOD 7471: MERCURY</b>                |        |          |      |       |     | Analyst: DBD         |
| Mercury                                        | ND     | 0.033    |      | mg/Kg | 1   | 8/2/2012 10:57:04 AM |
| <b>EPA METHOD 6010B: SOIL METALS</b>           |        |          |      |       |     | Analyst: JLF         |
| Antimony                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Arsenic                                        | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Barium                                         | 750    | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:50:18 AM |
| Beryllium                                      | 1.4    | 0.75     |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Cadmium                                        | ND     | 0.50     |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Chromium                                       | 20     | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Cobalt                                         | 6.7    | 1.5      |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Iron                                           | 23000  | 500      |      | mg/Kg | 500 | 8/8/2012 10:52:45 AM |
| Lead                                           | 2.0    | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Manganese                                      | 720    | 5.0      |      | mg/Kg | 50  | 8/8/2012 10:50:18 AM |
| Nickel                                         | 16     | 2.5      |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Selenium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Silver                                         | ND     | 1.2      |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Vanadium                                       | ND     | 12       |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| Zinc                                           | 23     | 12       |      | mg/Kg | 5   | 8/5/2012 5:48:24 PM  |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>         |        |          |      |       |     | Analyst: JDC         |
| Acenaphthene                                   | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Acenaphthylene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Aniline                                        | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Anthracene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Azobenzene                                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benz(a)anthracene                              | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzo(a)pyrene                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzo(b)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzo(g,h,i)perylene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzo(k)fluoranthene                           | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzoic acid                                   | ND     | 0.50     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Benzyl alcohol                                 | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Bis(2-chloroethoxy)methane                     | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Bis(2-chloroethyl)ether                        | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |
| Bis(2-chloroisopropyl)ether                    | ND     | 0.20     |      | mg/Kg | 1   | 7/25/2012 9:18:15 PM |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (48-50')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:45:00 PM

**Lab ID:** 1207900-006

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL   | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |      |      |       |    | Analyst: JDC         |
| Bis(2-ethylhexyl)phthalate             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 4-Bromophenyl phenyl ether             | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Butyl benzyl phthalate                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Carbazole                              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 4-Chloro-3-methylphenol                | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 4-Chloroaniline                        | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2-Chloronaphthalene                    | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2-Chlorophenol                         | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Chrysene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Di-n-butyl phthalate                   | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Di-n-octyl phthalate                   | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Dibenz(a,h)anthracene                  | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Dibenzofuran                           | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 1,2-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 1,3-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 1,4-Dichlorobenzene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 0.25 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Diethyl phthalate                      | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Dimethyl phthalate                     | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2,4-Dichlorophenol                     | ND     | 0.40 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2,4-Dimethylphenol                     | ND     | 0.30 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2,4-Dinitrophenol                      | ND     | 0.40 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2,4-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2,6-Dinitrotoluene                     | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Fluoranthene                           | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Fluorene                               | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Hexachlorobenzene                      | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Hexachlorobutadiene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Hexachlorocyclopentadiene              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Hexachloroethane                       | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Isophorone                             | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 1-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2-Methylnaphthalene                    | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2-Methylphenol                         | ND     | 0.50 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 3+4-Methylphenol                       | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| N-Nitrosodi-n-propylamine              | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| N-Nitrosodiphenylamine                 | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| Naphthalene                            | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |
| 2-Nitroaniline                         | ND     | 0.20 |      | mg/Kg | 1  | 7/25/2012 9:18:15 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
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- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-1 (48-50')

Project: SWMU NO.14

Collection Date: 7/18/2012 1:45:00 PM

Lab ID: 1207900-006

Matrix: SOIL

Received Date: 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL       | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|----------|------|-----------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |          |      |           |    | Analyst: JDC          |
| 3-Nitroaniline                         | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 4-Nitroaniline                         | ND     | 0.40     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Nitrobenzene                           | ND     | 0.50     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 2-Nitrophenol                          | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 4-Nitrophenol                          | ND     | 0.25     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Pentachlorophenol                      | ND     | 0.40     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Phenanthrene                           | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Phenol                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Pyrene                                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Pyridine                               | ND     | 0.50     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 1,2,4-Trichlorobenzene                 | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 2,4,5-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| 2,4,6-Trichlorophenol                  | ND     | 0.20     |      | mg/Kg     | 1  | 7/25/2012 9:18:15 PM  |
| Surr: 2,4,6-Tribromophenol             | 98.0   | 20.1-121 |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| Surr: 2-Fluorobiphenyl                 | 83.9   | 19-133   |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| Surr: 2-Fluorophenol                   | 79.3   | 20.2-108 |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| Surr: 4-Terphenyl-d14                  | 93.1   | 18.9-115 |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| Surr: Nitrobenzene-d5                  | 80.5   | 20.8-123 |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| Surr: Phenol-d5                        | 84.7   | 19.8-115 |      | %REC      | 1  | 7/25/2012 9:18:15 PM  |
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |          |      |           |    | Analyst: MMS          |
| Benzene                                | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Toluene                                | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Ethylbenzene                           | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Xylenes, Total                         | ND     | 2.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2,4-Trimethylbenzene                 | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,3,5-Trimethylbenzene                 | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Naphthalene                            | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1-Methylnaphthalene                    | ND     | 4.02     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 2-Methylnaphthalene                    | ND     | 4.02     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Acetone                                | ND     | 10.1     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Bromobenzene                           | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Bromodichloromethane                   | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Bromoform                              | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 2-Butanone                             | ND     | 2.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Carbon tetrachloride                   | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Chlorobenzene                          | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Chloroethane                           | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Chloroform                             | ND     | 1.01     |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (48-50')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:45:00 PM

**Lab ID:** 1207900-006

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL   | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |      |      |           |    | Analyst: MMS          |
| Chloromethane                          | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 2-Chlorotoluene                        | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Carbon disulfide                       | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 4-Chlorotoluene                        | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| cis-1,2-DCE                            | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| cis-1,3-Dichloropropene                | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2-Dibromo-3-chloropropane            | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Dibromochloromethane                   | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Dibromomethane                         | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2-Dichlorobenzene                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,3-Dichlorobenzene                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,4-Dichlorobenzene                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Dichlorodifluoromethane                | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1-Dichloroethane                     | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1-Dichloroethene                     | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2-Dichloropropane                    | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,3-Dichloropropane                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 2,2-Dichloropropane                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1-Dichloropropene                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Hexachlorobutadiene                    | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Isopropylbenzene                       | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 4-Isopropyltoluene                     | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Methylene chloride                     | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| n-Butylbenzene                         | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 2-Hexanone                             | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| n-Propylbenzene                        | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| sec-Butylbenzene                       | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Styrene                                | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 4-Methyl-2-pentanone                   | ND     | 2.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| tert-Butylbenzene                      | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1,1,2-Tetrachloroethane              | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1,2,2-Tetrachloroethane              | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Tetrachloroethene (PCE)                | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| trans-1,2-DCE                          | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| trans-1,3-Dichloropropene              | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2,3-Trichlorobenzene                 | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1,1-Trichloroethane                  | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,1,2-Trichloroethane                  | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Trichloroethene (TCE)                  | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Trichlorofluoromethane                 | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| 1,2,3-Trichloropropane                 | ND     | 1.01 |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-1 (48-50')

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:45:00 PM

**Lab ID:** 1207900-006

**Matrix:** SOIL

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL     | Qual | Units     | DF | Date Analyzed         |
|----------------------------------------|--------|--------|------|-----------|----|-----------------------|
| <b>METHOD 8260B/5035LOW: VOLATILES</b> |        |        |      |           |    | Analyst: <b>MMS</b>   |
| Vinyl chloride                         | ND     | 1.01   |      | µg/Kg-dry | 1  | 7/20/2012 12:53:16 PM |
| Surr: 1,2-Dichloroethane-d4            | 91.6   | 70-130 |      | %REC      | 1  | 7/20/2012 12:53:16 PM |
| Surr: 4-Bromofluorobenzene             | 94.4   | 70-130 |      | %REC      | 1  | 7/20/2012 12:53:16 PM |
| Surr: Dibromofluoromethane             | 88.1   | 70-130 |      | %REC      | 1  | 7/20/2012 12:53:16 PM |
| Surr: Toluene-d8                       | 106    | 70-130 |      | %REC      | 1  | 7/20/2012 12:53:16 PM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 GW

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 10:45:00 AM

**Lab ID:** 1207900-007

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                | Result | RL       | Qual | Units | DF  | Date Analyzed         |
|-----------------------------------------|--------|----------|------|-------|-----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>   |        |          |      |       |     | Analyst: JMP          |
| Diesel Range Organics (DRO)             | 83     | 10       |      | mg/L  | 10  | 7/22/2012 6:16:57 PM  |
| Motor Oil Range Organics (MRO)          | ND     | 50       |      | mg/L  | 10  | 7/22/2012 6:16:57 PM  |
| Surr: DNOP                              | 0      | 79.5-166 | S    | %REC  | 10  | 7/22/2012 6:16:57 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |          |      |       |     | Analyst: NSB          |
| Gasoline Range Organics (GRO)           | 1.5    | 0.25     |      | mg/L  | 5   | 7/25/2012 12:33:18 PM |
| Surr: BFB                               | 121    | 69.8-119 | S    | %REC  | 5   | 7/25/2012 12:33:18 PM |
| <b>EPA METHOD 200.7: METALS</b>         |        |          |      |       |     | Analyst: JLF          |
| Barium                                  | 2.8    | 0.020    | *    | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Beryllium                               | 0.042  | 0.020    | *    | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Cadmium                                 | ND     | 0.020    |      | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Chromium                                | 0.38   | 0.060    | *    | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Cobalt                                  | 0.12   | 0.060    |      | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Iron                                    | 120    | 10       | *    | mg/L  | 500 | 8/20/2012 1:45:48 PM  |
| Manganese                               | 45     | 0.20     | *    | mg/L  | 100 | 8/20/2012 1:42:17 PM  |
| Nickel                                  | 0.18   | 0.10     | *    | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Silver                                  | ND     | 0.050    |      | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Vanadium                                | 0.52   | 0.50     |      | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| Zinc                                    | 1.1    | 0.10     |      | mg/L  | 10  | 8/20/2012 1:39:05 PM  |
| <b>EPA 200.8: METALS</b>                |        |          |      |       |     | Analyst: SNV          |
| Antimony                                | ND     | 0.0025   |      | mg/L  | 2.5 | 7/30/2012 7:13:25 PM  |
| Arsenic                                 | 0.024  | 0.0025   | *    | mg/L  | 2.5 | 7/30/2012 7:13:25 PM  |
| Lead                                    | 0.19   | 0.0050   | *    | mg/L  | 5   | 7/31/2012 12:35:17 PM |
| Selenium                                | 0.0096 | 0.0025   |      | mg/L  | 2.5 | 7/31/2012 12:31:20 PM |
| <b>EPA METHOD 245.1: MERCURY</b>        |        |          |      |       |     | Analyst: JLF          |
| Mercury                                 | ND     | 0.00020  |      | mg/L  | 1   | 7/24/2012 10:38:23 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>  |        |          |      |       |     | Analyst: JDC          |
| Acenaphthene                            | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Acenaphthylene                          | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Aniline                                 | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Anthracene                              | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Azobenzene                              | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benz(a)anthracene                       | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzo(a)pyrene                          | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzo(b)fluoranthene                    | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzo(g,h,i)perylene                    | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzo(k)fluoranthene                    | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzoic acid                            | ND     | 20       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Benzyl alcohol                          | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |
| Bis(2-chloroethoxy)methane              | ND     | 10       |      | µg/L  | 1   | 7/24/2012 4:50:25 PM  |

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 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SWMU 14-3 GW

Project: SWMU NO.14

Collection Date: 7/18/2012 10:45:00 AM

Lab ID: 1207900-007

Matrix: AQUEOUS

Received Date: 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|----|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC         |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Di-n-octyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4-Dimethylphenol                     | 34     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 1-Methylnaphthalene                    | 140    | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Methylnaphthalene                    | 77     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| N-Nitrosodimethylamine                 | ND     | 10 |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 GW

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 10:45:00 AM

**Lab ID:** 1207900-007

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed        |
|----------------------------------------|--------|-----------|------|-------|----|----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC         |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Naphthalene                            | 24     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Nitroaniline                         | ND     | 20        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Phenanthrene                           | 20     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 7/24/2012 4:50:25 PM |
| Surr: 2,4,6-Tribromophenol             | 68.1   | 44.2-126  |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| Surr: 2-Fluorobiphenyl                 | 74.1   | 37-114    |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| Surr: 2-Fluorophenol                   | 56.3   | 23.4-98   |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| Surr: 4-Terphenyl-d14                  | 59.4   | 41.3-116  |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| Surr: Nitrobenzene-d5                  | 81.2   | 39.5-118  |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| Surr: Phenol-d5                        | 42.4   | 20.9-95.9 |      | %REC  | 1  | 7/24/2012 4:50:25 PM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF         |
| Benzene                                | 97     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Toluene                                | 13     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Ethylbenzene                           | 54     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Methyl tert-butyl ether (MTBE)         | 250    | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2,4-Trimethylbenzene                 | 82     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,3,5-Trimethylbenzene                 | 5.7    | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2-Dichloroethane (EDC)               | ND     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2-Dibromoethane (EDB)                | ND     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Naphthalene                            | 45     | 10        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1-Methylnaphthalene                    | 170    | 20        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 2-Methylnaphthalene                    | 110    | 20        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Acetone                                | ND     | 50        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Bromobenzene                           | ND     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Bromodichloromethane                   | ND     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Bromoform                              | ND     | 5.0       |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Bromomethane                           | ND     | 15        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 2-Butanone                             | ND     | 50        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Carbon disulfide                       | ND     | 50        |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |

**Qualifiers:**

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 GW

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 10:45:00 AM

**Lab ID:** 1207900-007

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL  | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|-----|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |     |      |       |    | Analyst: DJF         |
| Carbon Tetrachloride               | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Chlorobenzene                      | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Chloroethane                       | ND     | 10  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Chloroform                         | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Chloromethane                      | ND     | 15  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 2-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 4-Chlorotoluene                    | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| cis-1,2-DCE                        | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| cis-1,3-Dichloropropene            | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2-Dibromo-3-chloropropane        | ND     | 10  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Dibromochloromethane               | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Dibromomethane                     | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,3-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,4-Dichlorobenzene                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Dichlorodifluoromethane            | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1-Dichloroethane                 | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1-Dichloroethene                 | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,3-Dichloropropane                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 2,2-Dichloropropane                | ND     | 10  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1-Dichloropropene                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Hexachlorobutadiene                | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 2-Hexanone                         | ND     | 50  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Isopropylbenzene                   | 8.1    | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 4-Isopropyltoluene                 | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 4-Methyl-2-pentanone               | ND     | 50  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Methylene Chloride                 | ND     | 15  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| n-Butylbenzene                     | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| n-Propylbenzene                    | 12     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| sec-Butylbenzene                   | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Styrene                            | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| tert-Butylbenzene                  | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1,1,2-Tetrachloroethane          | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1,2,2-Tetrachloroethane          | ND     | 10  |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Tetrachloroethene (PCE)            | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| trans-1,2-DCE                      | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| trans-1,3-Dichloropropene          | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2,3-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2,4-Trichlorobenzene             | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1,1-Trichloroethane              | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,1,2-Trichloroethane              | ND     | 5.0 |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** SWMU 14-3 GW

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 10:45:00 AM

**Lab ID:** 1207900-007

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                           | Result | RL     | Qual | Units | DF | Date Analyzed        |
|------------------------------------|--------|--------|------|-------|----|----------------------|
| <b>EPA METHOD 8260B: VOLATILES</b> |        |        |      |       |    | Analyst: DJF         |
| Trichloroethene (TCE)              | ND     | 5.0    |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Trichlorofluoromethane             | ND     | 5.0    |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| 1,2,3-Trichloropropane             | ND     | 10     |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Vinyl chloride                     | ND     | 5.0    |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Xylenes, Total                     | 44     | 7.5    |      | µg/L  | 5  | 7/25/2012 5:05:57 PM |
| Surr: 1,2-Dichloroethane-d4        | 99.4   | 70-130 |      | %REC  | 5  | 7/25/2012 5:05:57 PM |
| Surr: 4-Bromofluorobenzene         | 91.2   | 70-130 |      | %REC  | 5  | 7/25/2012 5:05:57 PM |
| Surr: Dibromofluoromethane         | 122    | 70-130 |      | %REC  | 5  | 7/25/2012 5:05:57 PM |
| Surr: Toluene-d8                   | 107    | 70-130 |      | %REC  | 5  | 7/25/2012 5:05:57 PM |

**Qualifiers:**

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** FB071812

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:15:00 PM

**Lab ID:** 1207900-008

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                                | Result | RL       | Qual | Units | DF | Date Analyzed         |
|-----------------------------------------|--------|----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE</b>   |        |          |      |       |    | Analyst: JMP          |
| Diesel Range Organics (DRO)             | ND     | 1.0      |      | mg/L  | 1  | 7/21/2012 3:14:28 PM  |
| Motor Oil Range Organics (MRO)          | ND     | 5.0      |      | mg/L  | 1  | 7/21/2012 3:14:28 PM  |
| Surr: DNOP                              | 137    | 79.5-166 |      | %REC  | 1  | 7/21/2012 3:14:28 PM  |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b> |        |          |      |       |    | Analyst: NSB          |
| Gasoline Range Organics (GRO)           | ND     | 0.050    |      | mg/L  | 1  | 7/25/2012 12:08:08 AM |
| Surr: BFB                               | 112    | 69.8-119 |      | %REC  | 1  | 7/25/2012 12:08:08 AM |
| <b>EPA METHOD 200.7: METALS</b>         |        |          |      |       |    | Analyst: JLF          |
| Barium                                  | ND     | 0.0020   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Beryllium                               | ND     | 0.0020   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Cadmium                                 | ND     | 0.0020   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Chromium                                | ND     | 0.0060   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Cobalt                                  | ND     | 0.0060   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Iron                                    | ND     | 0.020    |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Manganese                               | ND     | 0.0020   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Nickel                                  | ND     | 0.010    |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Silver                                  | ND     | 0.0050   |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Vanadium                                | ND     | 0.050    |      | mg/L  | 1  | 8/17/2012 12:12:31 PM |
| Zinc                                    | ND     | 0.010    |      | mg/L  | 1  | 8/20/2012 1:49:17 PM  |
| <b>EPA 200.8: METALS</b>                |        |          |      |       |    | Analyst: SNV          |
| Antimony                                | ND     | 0.0010   |      | mg/L  | 1  | 7/31/2012 6:32:29 PM  |
| Arsenic                                 | ND     | 0.0010   |      | mg/L  | 1  | 7/31/2012 6:32:29 PM  |
| Lead                                    | ND     | 0.0010   |      | mg/L  | 1  | 7/31/2012 6:32:29 PM  |
| Selenium                                | ND     | 0.0010   |      | mg/L  | 1  | 7/31/2012 6:32:29 PM  |
| <b>EPA METHOD 245.1: MERCURY</b>        |        |          |      |       |    | Analyst: JLF          |
| Mercury                                 | ND     | 0.00020  |      | mg/L  | 1  | 7/24/2012 10:40:09 AM |
| <b>EPA METHOD 8270C: SEMIVOLATILES</b>  |        |          |      |       |    | Analyst: JDC          |
| Acenaphthene                            | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Acenaphthylene                          | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Aniline                                 | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Anthracene                              | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Azobenzene                              | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benz(a)anthracene                       | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzo(a)pyrene                          | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzo(b)fluoranthene                    | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzo(g,h,i)perylene                    | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzo(k)fluoranthene                    | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzoic acid                            | ND     | 20       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Benzyl alcohol                          | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Bis(2-chloroethoxy)methane              | ND     | 10       |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB071812

Project: SWMU NO.14

Collection Date: 7/18/2012 1:15:00 PM

Lab ID: 1207900-008

Matrix: AQUEOUS

Received Date: 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|----|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |    |      |       |    | Analyst: JDC          |
| Bis(2-chloroethyl)ether                | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Bis(2-chloroisopropyl)ether            | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Bis(2-ethylhexyl)phthalate             | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Bromophenyl phenyl ether             | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Butyl benzyl phthalate                 | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Carbazole                              | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Chloro-3-methylphenol                | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Chloroaniline                        | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Chloronaphthalene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Chlorophenol                         | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Chlorophenyl phenyl ether            | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Chrysene                               | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Di-n-butyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Di-n-octyl phthalate                   | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Dibenz(a,h)anthracene                  | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Dibenzofuran                           | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 1,2-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 1,3-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 1,4-Dichlorobenzene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 3,3'-Dichlorobenzidine                 | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Diethyl phthalate                      | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Dimethyl phthalate                     | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4-Dichlorophenol                     | ND     | 20 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4-Dimethylphenol                     | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4,6-Dinitro-2-methylphenol             | ND     | 20 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4-Dinitrophenol                      | ND     | 20 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,6-Dinitrotoluene                     | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Fluoranthene                           | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Fluorene                               | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Hexachlorobenzene                      | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Hexachlorobutadiene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Hexachlorocyclopentadiene              | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Hexachloroethane                       | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Indeno(1,2,3-cd)pyrene                 | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Isophorone                             | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 1-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Methylnaphthalene                    | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Methylphenol                         | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 3+4-Methylphenol                       | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| N-Nitrosodi-n-propylamine              | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| N-Nitrosodimethylamine                 | ND     | 10 |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207900

Date Reported: 8/22/2012

**CLIENT:** Western Refining Southwest, Gallup

**Client Sample ID:** FB071812

**Project:** SWMU NO.14

**Collection Date:** 7/18/2012 1:15:00 PM

**Lab ID:** 1207900-008

**Matrix:** AQUEOUS

**Received Date:** 7/20/2012 7:55:00 AM

| Analyses                               | Result | RL        | Qual | Units | DF | Date Analyzed         |
|----------------------------------------|--------|-----------|------|-------|----|-----------------------|
| <b>EPA METHOD 8270C: SEMIVOLATILES</b> |        |           |      |       |    | Analyst: JDC          |
| N-Nitrosodiphenylamine                 | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Naphthalene                            | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 3-Nitroaniline                         | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Nitroaniline                         | ND     | 20        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Nitrobenzene                           | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 4-Nitrophenol                          | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Pentachlorophenol                      | ND     | 20        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Phenanthrene                           | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Phenol                                 | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Pyrene                                 | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Pyridine                               | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 1,2,4-Trichlorobenzene                 | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4,5-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| 2,4,6-Trichlorophenol                  | ND     | 10        |      | µg/L  | 1  | 7/25/2012 11:46:55 AM |
| Surr: 2,4,6-Tribromophenol             | 89.5   | 44.2-126  |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| Surr: 2-Fluorobiphenyl                 | 72.2   | 37-114    |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| Surr: 2-Fluorophenol                   | 58.5   | 23.4-98   |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| Surr: 4-Terphenyl-d14                  | 79.6   | 41.3-116  |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| Surr: Nitrobenzene-d5                  | 69.3   | 39.5-118  |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| Surr: Phenol-d5                        | 43.5   | 20.9-95.9 |      | %REC  | 1  | 7/25/2012 11:46:55 AM |
| <b>EPA METHOD 8260B: VOLATILES</b>     |        |           |      |       |    | Analyst: DJF          |
| Benzene                                | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Toluene                                | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Ethylbenzene                           | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Methyl tert-butyl ether (MTBE)         | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 1,2,4-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 1,3,5-Trimethylbenzene                 | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 1,2-Dichloroethane (EDC)               | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 1,2-Dibromoethane (EDB)                | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Naphthalene                            | ND     | 2.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 1-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 2-Methylnaphthalene                    | ND     | 4.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Acetone                                | ND     | 10        |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Bromobenzene                           | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Bromodichloromethane                   | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Bromoform                              | ND     | 1.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Bromomethane                           | ND     | 3.0       |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| 2-Butanone                             | ND     | 10        |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |
| Carbon disulfide                       | ND     | 10        |      | µg/L  | 1  | 7/23/2012 7:12:30 PM  |

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL