

AP-111

BINDER 2

2 of 5

**Annual Ground Water Monitoring Report:
Gallup Refinery – 2012**



Western Refining

Gallup, New Mexico

April 17, 2012

Appendix K



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

June 05, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2012 SEMI-ANNUAL-PONDS

OrderNo.: 1205B64

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 5/30/2012 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 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.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 7:40:00 AM

Lab ID: 1205B64-001

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	100	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	4106	10		CFU/100ml	10	Analyst: LBJ 5/31/2012 3:40:00 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

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-1**Project:** 2012 SEMI-ANNUAL-PONDS**Collection Date:** 5/30/2012 7:45:00 AM**Lab ID:** 1205B64-002**Matrix:** AQUEOUS**Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	340	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	>24196	10		CFU/100ml	10	Analyst: LBJ 5/31/2012 3:40:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 7:55:00 AM

Lab ID: 1205B64-003

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	37	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<10	10		CFU/100ml	10	5/31/2012 3:40:00 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

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-12A**Project:** 2012 SEMI-ANNUAL-PONDS**Collection Date:** 5/30/2012 8:00:00 AM**Lab ID:** 1205B64-004**Matrix:** AQUEOUS**Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	22	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<10	10		CFU/100ml	10	5/31/2012 3:40:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 8:05:00 AM

Lab ID: 1205B64-005

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	20	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<10	10		CFU/100ml	10	5/31/2012 7:35:00 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

Analytical ReportLab Order **1205B64**Date Reported: **6/5/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-7**Project:** 2012 SEMI-ANNUAL-PONDS**Collection Date:** 5/30/2012 8:10:00 AM**Lab ID:** 1205B64-006**Matrix:** AQUEOUS**Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	15	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	<1	1.0		CFU/100ml	1	Analyst: LBJ 5/31/2012 7:35:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 8:15:00 AM

Lab ID: 1205B64-007

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	4.5	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<1	1.0		CFU/100ml	1	5/31/2012 7:35:00 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

Analytical ReportLab Order **1205B64**Date Reported: **6/5/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-5**Project:** 2012 SEMI-ANNUAL-PONDS**Collection Date:** 5/30/2012 8:20:00 AM**Lab ID:** 1205B64-008**Matrix:** AQUEOUS**Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	35	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	10	10		CFU/100ml	10	Analyst: LBJ 5/31/2012 7:35:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 8:25:00 AM

Lab ID: 1205B64-009

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	59	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<10	10		CFU/100ml	10	5/31/2012 7:35:00 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

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-3**Project:** 2012 SEMI-ANNUAL-PONDS**Collection Date:** 5/30/2012 8:30:00 AM**Lab ID:** 1205B64-010**Matrix:** AQUEOUS**Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	69	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	10	10		CFU/100ml	10	Analyst: LBJ 5/31/2012 7:35:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 8:40:00 AM

Lab ID: 1205B64-011

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	23	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: LBJ
E. Coli	<1	1.0		CFU/100ml	1	5/31/2012 7:35:00 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1205B64

Date Reported: 6/5/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 SEMI-ANNUAL-PONDS

Collection Date: 5/30/2012 8:45:00 AM

Lab ID: 1205B64-012

Matrix: AQUEOUS

Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						
Biochemical Oxygen Demand	18	2.0		mg/L	1	Analyst: JAL 6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						
E. Coli	<1	1.0	H	CFU/100ml	1	Analyst: LBJ 5/31/2012 7:35:00 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1205B64

05-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI-ANNUAL-PONDS

Sample ID	MB-2171	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2171	RunNo:	3196					
Prep Date:	5/31/2012	Analysis Date:	6/5/2012	SeqNo:	88470	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB-2171	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2171	RunNo:	3196					
Prep Date:	5/31/2012	Analysis Date:	6/5/2012	SeqNo:	88472	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-2171	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	2171	RunNo:	3196					
Prep Date:	5/31/2012	Analysis Date:	6/5/2012	SeqNo:	88474	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	190	2.0	198.0	0	97.2	84.6	115.4			

Sample ID	LCSD-2171	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	2171	RunNo:	3196					
Prep Date:	5/31/2012	Analysis Date:	6/5/2012	SeqNo:	88476	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	190	2.0	198.0	0	96.2	84.6	115.4	1.04	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#: 1205B64

05-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI-ANNUAL-PONDS

Sample ID	MB-2162	SampType:	MBLK	TestCode:	SM 9223B Fecal Indicator: E. coli MPN					
Client ID:	PBW	Batch ID:	2162	RunNo:	3135					
Prep Date:	5/30/2012	Analysis Date:	5/31/2012	SeqNo:	86647	Units:	CFU/100ml			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Sample ID	MB-2163	SampType:	MBLK	TestCode:	SM 9223B Fecal Indicator: E. coli	MPN				
Client ID:	PBW	Batch ID:	2163	RunNo:	3141					
Prep Date:	5/30/2012	Analysis Date:	5/31/2012	SeqNo:	86823	Units: CFU/100ml				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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



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: 1205B64

Received by/date: JB 05/30/12

Logged By: Anne Thorne 5/30/2012 1:00:00 PM

Completed By: Anne Thorne 5/30/2012

Reviewed By: [Signature] 05/30/12

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?

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°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: 0
(<2 or >12 unless noted)
Adjusted? N/A
Checked by: JB 5/30

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	Not Present			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

Accreditation:

☒ NELAP

☐ Other

☐ EDD (Type)

Project Manager: C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Site: ☒ Yes ☐ No

Sample Temperature: 19 °C

Date

Time

Matrix

Sample Request ID

Container Type and #

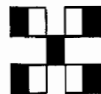
Preservative Type

HEAL No.

BOD

F-COL

Air Bubbles (Y or N)



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Remarks:

Received by: *[Signature]* Date: 5/30/12 Time: 1300

Relinquished by: *[Signature]* Date: 5/30/12 Time: 1300

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*

June 21, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206685

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/15/2012 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 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 9:40:00 AM

Lab ID: 1206685-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Methyl tert-butyl ether (MTBE)	7.9	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 6:18:51 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 6:18:51 PM
Acetone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 6:18:51 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

Analytical Report

Lab Order 1206685

Date Reported: 6/21/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-13**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/14/2012 9:40:00 AM**Lab ID:** 1206685-001**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 6:18:51 PM
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	6/19/2012 6:18:51 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 6:18:51 PM
Surr: Dibromofluoromethane	114	69.8-130		%REC	1	6/19/2012 6:18:51 PM
Surr: Toluene-d8	97.6	70-130		%REC	1	6/19/2012 6:18:51 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 8:05:00 AM

Lab ID: 1206685-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	2600	50		µg/L	50	6/19/2012 6:47:08 PM
Toluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Ethylbenzene	53	10		µg/L	10	6/19/2012 7:15:26 PM
Methyl tert-butyl ether (MTBE)	1200	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Naphthalene	ND	20		µg/L	10	6/19/2012 7:15:26 PM
1-Methylnaphthalene	ND	40		µg/L	10	6/19/2012 7:15:26 PM
2-Methylnaphthalene	ND	40		µg/L	10	6/19/2012 7:15:26 PM
Acetone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Bromobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromodichloromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromoform	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromomethane	ND	30		µg/L	10	6/19/2012 7:15:26 PM
2-Butanone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Carbon disulfide	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Carbon Tetrachloride	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chloroethane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Chloroform	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chloromethane	ND	30		µg/L	10	6/19/2012 7:15:26 PM
2-Chlorotoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Chlorotoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
cis-1,2-DCE	ND	10		µg/L	10	6/19/2012 7:15:26 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Dibromochloromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Dibromomethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Dichlorodifluoromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloroethene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichloropropane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3-Dichloropropane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
2,2-Dichloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Hexachlorobutadiene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
2-Hexanone	ND	100		µg/L	10	6/19/2012 7:15:26 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 8:05:00 AM

Lab ID: 1206685-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Isopropyltoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Methylene Chloride	ND	30		µg/L	10	6/19/2012 7:15:26 PM
n-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
n-Propylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
sec-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Styrene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
tert-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
trans-1,2-DCE	ND	10		µg/L	10	6/19/2012 7:15:26 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Trichloroethene (TCE)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Trichlorofluoromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Vinyl chloride	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Xylenes, Total	ND	15		µg/L	10	6/19/2012 7:15:26 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	10	6/19/2012 7:15:26 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	10	6/19/2012 7:15:26 PM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/19/2012 7:15:26 PM
Surr: Toluene-d8	96.2	70-130		%REC	10	6/19/2012 7:15:26 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 2:00:00 PM

Lab ID: 1206685-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Methyl tert-butyl ether (MTBE)	470	10		µg/L	10	6/20/2012 2:51:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 7:43:41 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 7:43:41 PM
Acetone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 7:43:41 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 2:00:00 PM

Lab ID: 1206685-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 7:43:41 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	1	6/19/2012 7:43:41 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 7:43:41 PM
Surr: Dibromofluoromethane	119	69.8-130		%REC	1	6/19/2012 7:43:41 PM
Surr: Toluene-d8	98.0	70-130		%REC	1	6/19/2012 7:43:41 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 10:25:00 AM

Lab ID: 1206685-004

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Methyl tert-butyl ether (MTBE)	1500	20		µg/L	20	6/20/2012 3:20:18 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 8:11:52 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 8:11:52 PM
Acetone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromofom	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 8:11:52 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

Analytical Report

Lab Order 1206685

Date Reported: 6/21/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-30**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/14/2012 10:25:00 AM**Lab ID:** 1206685-004**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 8:11:52 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	6/19/2012 8:11:52 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 8:11:52 PM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/19/2012 8:11:52 PM
Surr: Toluene-d8	98.2	70-130		%REC	1	6/19/2012 8:11:52 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 7:50:00 AM

Lab ID: 1206685-005

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 9:08:22 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 9:08:22 PM
Acetone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 9:08:22 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 1206685

Date Reported: 6/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/14/2012 7:50:00 AM

Lab ID: 1206685-005

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 9:08:22 PM
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	6/19/2012 9:08:22 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	6/19/2012 9:08:22 PM
Surr: Dibromofluoromethane	111	69.8-130		%REC	1	6/19/2012 9:08:22 PM
Surr: Toluene-d8	95.7	70-130		%REC	1	6/19/2012 9:08:22 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206685

21-Jun-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3550	RunNo:	3550					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100059	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								
on disulfide	ND	10								
...on 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.
- 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#: 1206685

21-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3550	RunNo:	3550					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100059	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	1.0								
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								
Trichloroethane	ND	1.0								
1,1,1,2-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	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3550	RunNo:	3550					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100062	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.5	84.1	126			
Toluene	18	1.0	20.00	0	91.3	80	120			
Chlorobenzene	19	1.0	20.00	0	93.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.4	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.8	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

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#: 1206685

21-Jun-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R3550		RunNo: 3550							
Prep Date:	Analysis Date: 6/19/2012		SeqNo: 100062		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID 1206776-001a ms	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R3550		RunNo: 3550							
Prep Date:	Analysis Date: 6/19/2012		SeqNo: 100063		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	3.090	101	71.1	135			
Toluene	22	1.0	20.00	3.512	92.2	74	121			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.4	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		115	69.8	130			
Surr: Toluene-d8	9.7		10.00		96.5	70	130			

Sample ID 1206776-001a msd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R3550		RunNo: 3550							
Prep Date:	Analysis Date: 6/19/2012		SeqNo: 100065		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	3.090	96.3	71.1	135	4.25	21.9	
Toluene	21	1.0	20.00	3.512	86.2	74	121	5.60	18.5	
Chlorobenzene	18	1.0	20.00	0	90.2	70	130	2.28	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	89.9	76.3	127	8.06	16.5	
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	7.32	18.9	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		115	69.8	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.8	70	130	0	0	

Sample ID 5ml rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R3578		RunNo: 3578							
Prep Date:	Analysis Date: 6/20/2012		SeqNo: 100935		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		120	69.8	130			

Qualifiers:

- Y Value exceeds Maximum Contaminant Level.
- J 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#: 1206685

21-Jun-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R3578		RunNo:	3578				
Prep Date:		Analysis Date:	6/20/2012		SeqNo:	100935	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3578	RunNo:	3578					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	100937	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	12		10.00		117	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Qualifiers:

- | | | | |
|---|--|----|--|
| - | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| | 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |



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: 1206685

Received by/date: AG 06/15/12

Logged By: Anne Thorne 6/15/2012 9:31:00 AM

Completed By: Anne Thorne 6/15/2012

Reviewed By: IO 06/15/12

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 ☒ 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°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			



Client: Western Refining

Mailing Address:
Rt 3 Box 7

Gallup. NM 87301

Analysis Request

[illegible]

Remarks:

Date _____ Time _____

Received by:

Relinquished by:

Date:	Time:
-------	-------

Date _____ Time _____

Received by:

Relinquished 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 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

June 25, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: ^{2nd} 1st QTR Groundwater Sampling

OrderNo.: 1206669

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/15/2012 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 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1206669

Date Reported: 6/25/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AI-1

Project: 1st QTR Groundwater Sampling

Collection Date: 6/14/2012 10:50:00 AM

Lab ID: 1206669-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	9.2	1.0		mg/L	1	6/18/2012 11:04:17 AM
Motor Oil Range Organics (MRO)	44	5.0		mg/L	1	6/18/2012 11:04:17 AM
Surr: DNOP	134	61.3-164		%REC	1	6/18/2012 11:04:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	8.1	2.5		mg/L	50	6/20/2012 2:55:37 AM
Surr: BFB	80.8	69.3-120		%REC	50	6/20/2012 2:55:37 AM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Chloride	210	10		mg/L	20	6/15/2012 11:32:40 PM
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	410	2.0		mg/L	1	6/20/2012 10:08:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Aniline	410	100		µg/L	10	6/18/2012 8:55:40 PM
Anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Benzyl alcohol	13	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Carbazole	11	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Chrysene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 3:20:26 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 1206669

Date Reported: 6/25/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to Al-1

Project: 1st QTR Groundwater Sampling

Collection Date: 6/14/2012 10:50:00 AM

Lab ID: 1206669-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dimethylphenol	240	100		µg/L	10	6/18/2012 8:55:40 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Fluorene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Isophorone	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1-Methylnaphthalene	73	10		µg/L	1	6/18/2012 3:20:26 PM
2-Methylnaphthalene	110	10		µg/L	1	6/18/2012 3:20:26 PM
2-Methylphenol	1200	100		µg/L	10	6/18/2012 8:55:40 PM
3+4-Methylphenol	2100	500		µg/L	50	6/19/2012 9:41:37 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Naphthalene	96	10		µg/L	1	6/18/2012 3:20:26 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Phenanthrene	13	10		µg/L	1	6/18/2012 3:20:26 PM
Phenol	4100	500		µg/L	50	6/19/2012 9:41:37 AM
Pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Pyridine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 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 1206669

Date Reported: 6/25/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** Infl to Al-1**Project:** 1st QTR Groundwater Sampling**Collection Date:** 6/14/2012 10:50:00 AM**Lab ID:** 1206669-001**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2,4,6-Tribromophenol	76.9	44.2-126		%REC	1	6/18/2012 3:20:26 PM
Surr: 2-Fluorobiphenyl	62.5	37-114		%REC	1	6/18/2012 3:20:26 PM
Surr: 2-Fluorophenol	32.7	23.4-98		%REC	1	6/18/2012 3:20:26 PM
Surr: 4-Terphenyl-d14	72.0	41.3-116		%REC	1	6/18/2012 3:20:26 PM
Surr: Nitrobenzene-d5	72.4	39.5-118		%REC	1	6/18/2012 3:20:26 PM
Surr: Phenol-d5	42.7	20.9-95.9		%REC	1	6/18/2012 3:20:26 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	670	10		µg/L	10	6/18/2012 6:08:42 AM
Toluene	1300	100		µg/L	100	6/18/2012 6:45:11 PM
Ethylbenzene	130	10		µg/L	10	6/18/2012 6:08:42 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,4-Trimethylbenzene	160	10		µg/L	10	6/18/2012 6:08:42 AM
1,3,5-Trimethylbenzene	47	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Naphthalene	130	20		µg/L	10	6/18/2012 6:08:42 AM
1-Methylnaphthalene	73	40		µg/L	10	6/18/2012 6:08:42 AM
2-Methylnaphthalene	110	40		µg/L	10	6/18/2012 6:08:42 AM
Acetone	1600	100		µg/L	10	6/18/2012 6:08:42 AM
Bromobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromodichloromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromoform	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromomethane	ND	30		µg/L	10	6/18/2012 6:08:42 AM
2-Butanone	280	100		µg/L	10	6/18/2012 6:08:42 AM
Carbon disulfide	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chloroethane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Chloroform	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chloromethane	ND	30		µg/L	10	6/18/2012 6:08:42 AM
2-Chlorotoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Chlorotoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
cis-1,2-DCE	ND	10		µg/L	10	6/18/2012 6:08:42 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Dibromochloromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Dibromomethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/18/2012 6:08:42 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

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 1206669

Date Reported: 6/25/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AI-1

Project: 1st QTR Groundwater Sampling

Collection Date: 6/14/2012 10:50:00 AM

Lab ID: 1206669-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
2-Hexanone	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Isopropylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Methylene Chloride	ND	30		µg/L	10	6/18/2012 6:08:42 AM
n-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
n-Propylbenzene	19	10		µg/L	10	6/18/2012 6:08:42 AM
sec-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Styrene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
tert-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
trans-1,2-DCE	ND	10		µg/L	10	6/18/2012 6:08:42 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Vinyl chloride	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Xylenes, Total	830	15		µg/L	10	6/18/2012 6:08:42 AM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	10	6/18/2012 6:08:42 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	10	6/18/2012 6:08:42 AM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/18/2012 6:08:42 AM
Surr: Toluene-d8	94.9	70-130		%REC	10	6/18/2012 6:08:42 AM
SM4500-H+B: PH						Analyst: DBD
pH	8.73	1.68	*H	pH units	1	6/18/2012 11:45:42 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

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



12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 25, 2012

Date Received : June 19, 2012
Description :
Sample ID : 1206669-001F INFL TO AL-1
Collected By :
Collection Date : 06/14/12 10:50

ESC Sample # : L581021-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1100	20.	mg/l	410.4	06/23/12	2

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/25/12 09:22 Printed: 06/25/12 09:23



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE
Albuquerque, NM 87109

Quality Assurance Report
Level II

L581021

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

June 25, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG599342	06/23/12 13:19

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	3200	3400	4.82	5	L579957-01	WG599342
COD	mg/l	640.	660.	2.76	5	L580205-01	WG599342
COD	mg/l	1200	1100	4.44	5	L581021-01	WG599342

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	236.	103.	90-110	WG599342

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	232.	236.	101.	90-110	1.71	5	WG599342

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	684.	290.	400	98.5	90-110	L581126-01	WG599342

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	685.	684.	98.8	90-110	0.146	5	L581126-01	WG599342

Batch number / Run number / Sample number cross reference

WG599342: R2223914: L581021-01

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3480	RunNo:	3480					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	97695	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:	R3480	RunNo:	3480					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	97696	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	95.4	90	110			

Sample ID	1206653-002BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3480	RunNo:	3480					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	97698	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.51	104	87.8	111			

Sample ID	1206653-002BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3480	RunNo:	3480					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	97699	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.51	104	87.8	111	0.218	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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	MB-2434		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	PBW		Batch ID:	2434		RunNo:	3492				
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98200		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	1.2		1.000		125	61.3	164				

Sample ID	LCS-2434		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSW		Batch ID:	2434		RunNo:	3492				
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98201		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157				
Surr: DNOP	0.52		0.5000		104	61.3	164				

Sample ID	LCSD-2434		SampType:	LCSD		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSS02		Batch ID:	2434		RunNo:	3492				
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98202		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23		
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0		

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100247	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.3	69.3	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100248	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	107	101	123			
Surr: BFB	21		20.00		107	69.3	120			

Sample ID	1206669-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	Infl to AI-1	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100405	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	2.5	25.00	8.110	85.3	75.4	121			
Surr: BFB	1200		1000		118	69.3	120			

Sample ID	1206669-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	Infl to AI-1	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100406	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	2.5	25.00	8.110	84.0	75.4	121	1.09	10.5	
Surr: BFB	1000		1000		104	69.3	120	0	0	

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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID: 5ml-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R3493			RunNo: 3493						
Prep Date:	Analysis Date: 6/17/2012			SeqNo: 98225		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	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								
2-Hexanone	ND	10								

Qualifiers:

V Value exceeds Maximum Contaminant Level.

Y 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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3493	RunNo:	3493					
Prep Date:		Analysis Date:	6/17/2012	SeqNo:	98225	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
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	9.1		10.00		90.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		113	69.8	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3493	RunNo:	3493					
Prep Date:		Analysis Date:	6/17/2012	SeqNo:	98228	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	84.1	126			
Chlorobenzene	18	1.0	20.00	0	92.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.3	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	12		10.00		117	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	1206592-001a ms			SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC			Batch ID:	R3493		RunNo:	3493			
Prep Date:				Analysis Date:	6/17/2012		SeqNo:	98229		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chlorobenzene	93	5.0	100.0	0	93.1	70	130				
1,1-Dichloroethene	100	5.0	100.0	0	100	76.3	127				
Trichloroethene (TCE)	92	5.0	100.0	0	91.6	70	130				
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130				
Surr: 4-Bromofluorobenzene	47		50.00		93.4	70	130				
Surr: Dibromofluoromethane	53		50.00		106	69.8	130				
Surr: Toluene-d8	46		50.00		92.0	70	130				

Sample ID	1206592-001a msd			SampType:	MSD						TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	BatchQC			Batch ID:	R3493						RunNo:	3493						
Prep Date:				Analysis Date:	6/17/2012						SeqNo:	98230		Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual								
Chlorobenzene	89	5.0	100.0	0	89.1	70	130	4.35	17.7									
1,1-Dichloroethene	94	5.0	100.0	0	94.5	76.3	127	5.82	16.5									
Trichloroethene (TCE)	91	5.0	100.0	0	91.3	70	130	0.289	18.9									
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130	0	0									
Surr: 4-Bromofluorobenzene	48		50.00		96.4	70	130	0	0									
Surr: Dibromofluoromethane	56		50.00		112	69.8	130	0	0									
Surr: Toluene-d8	47		50.00		94.6	70	130	0	0									

Sample ID	5ml-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R3521			RunNo: 3521					
Prep Date:		Analysis Date: 6/18/2012			SeqNo: 99095		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	69.8	130			
Surr: Toluene-d8	9.5		10.00		94.6	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3521	RunNo:	3521					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	99109	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	18	1.0	20.00	0	89.6	80	120			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.5	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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	1206677-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3521	RunNo:	3521					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	99122	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	19	1.0	20.00	0.8094	89.6	74	121			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	12		10.00		122	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.2	70	130			

Sample ID	1206677-001a msd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R3521		RunNo:	3521				
Prep Date:			Analysis Date:	6/18/2012		SeqNo:	99125		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Toluene	17	1.0	20.00	0.8094	80.1	74	121	10.7	18.5		
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.6	70	130	0	0		
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130	0	0		
Surr: Dibromofluoromethane	12		10.00		120	69.8	130	0	0		
Surr: Toluene-d8	9.4		10.00		94.3	70	130	0	0		

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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	lcs-2433		SampType: LCS	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 2433	RunNo: 3511						
Prep Date:	6/18/2012		Analysis Date: 6/18/2012	SeqNo: 98782		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.0	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	82.2	35.5	108			
2-Chlorophenol	140	10	200.0	0	70.6	29.8	106			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	86.8	44.7	112			
N-Nitrosodi-n-propylamine	81	10	100.0	0	80.6	38.5	105			
4-Nitrophenol	85	10	200.0	0	42.3	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	65.2	20.2	93			
Phenol	96	10	200.0	0	48.1	23	66.1			
Pyrene	85	10	100.0	0	84.6	40.1	101			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.1	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		86.5	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		76.0	37	114			
Surr: 2-Fluorophenol	110		200.0		55.1	23.4	98			
Surr: 4-Terphenyl-d14	93		100.0		92.6	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		77.5	39.5	118			
Surr: Phenol-d5	100		200.0		51.9	20.9	95.9			

Sample ID	lcsd-2433		SampType: LCSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 2433	RunNo: 3511						
Prep Date:	6/18/2012		Analysis Date: 6/18/2012	SeqNo: 98784		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	38.2	99.4	5.88	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.2	35.5	108	2.54	20	
2-Chlorophenol	130	10	200.0	0	67.2	29.8	106	4.95	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.9	32.6	91.5	4.22	20	
2,4-Dinitrotoluene	96	10	100.0	0	96.4	44.7	112	10.4	20	
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.7	38.5	105	1.20	20	
4-Nitrophenol	97	10	200.0	0	48.5	11.6	73.1	13.7	20	
Pentachlorophenol	140	20	200.0	0	72.3	20.2	93	10.3	20	
Phenol	86	10	200.0	0	42.9	23	66.1	11.4	20	
Pyrene	93	10	100.0	0	93.3	40.1	101	9.79	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	6.51	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.6	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		53.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	91		100.0		90.6	41.3	116	0	0	
Surr: Nitrobenzene-d5	83		100.0		82.8	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.4	20.9	95.9	0	0	

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- △ 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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	MB-2433	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2433	RunNo:	3511					
Prep Date:	6/18/2012	Analysis Date:	6/18/2012	SeqNo:	99052	Units:	µg/L			
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:

*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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	MB-2433	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2433	RunNo:	3511					
Prep Date:	6/18/2012	Analysis Date:	6/18/2012	SeqNo:	99052	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								
4-Nitroaniline	ND	10								
2,4-Dinitroaniline	ND	20								
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	170		200.0		82.8	44.2	126			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.7	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		78.3	39.5	118			
Surr: Phenol-d5	99		200.0		49.6	20.9	95.9			

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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	MB-2409	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2409	RunNo:	3553					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	100184	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB-2409	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2409	RunNo:	3553					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	100185	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-2409	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	2409	RunNo:	3553					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	100186	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	91.0	84.6	115.4			

Sample ID	LCSD-2409	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	2409	RunNo:	3553					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	100187	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	91.8	84.6	115.4	0.829	20	

Sample ID	1206583-001CDUP	SampType:	DUP	TestCode:	SM5210B: BOD					
Client ID:	BatchQC	Batch ID:	2409	RunNo:	3553					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	100189	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	3.0	2.0						0.333	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#: 1206669

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID	1206670-001C dup			SampType:	DUP		TestCode:	SM4500-H+B: pH			
Client ID:	BatchQC		Batch ID:	R3500		RunNo:	3500				
Prep Date:				Analysis Date:	6/18/2012		SeqNo:	98377		Units:	pH units
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH		8.13	1.68								H

Sample ID	1206736-005C dup	SampType:	DUP	TestCode:	SM4500-H+B: pH						
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500						
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98394	Units:	pH units				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH		8.49	1.68								H

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



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: 1206669

Received by/date:

AG 06/15/12

Logged By: Michelle Garcia

6/15/2012 9:31:00 AM

Michelle Garcia

Completed By: Michelle Garcia

6/15/2012 11:09:35 AM

Michelle Garcia

Reviewed By:

mg 06/15/12

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 ☒ 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°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: mg

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	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address:

Rt 3 Box 7

Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Date Time Matrix Sample Request ID

6/14/12 1050 W Infl to AL-1
Infl to AL-2
Infl to EP-1

Container Type and #

VARIOUS

Preservative Type

VARIOUS

Turn-Around Time:

☐ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

Date: 6/15/12

Relinquished by: Tom Deane

Date: 6/15/12

Relinquished by:

Received by:

Date: 6/15/12

Time: 0931

Received by:

Date: 6/15/12

Time: 0931

Remarks:

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**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Air Bubbles (Y or N)



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

July 12, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206537

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 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 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:50:00 PM

Lab ID: 1206537-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	7.6	1.0		mg/L	1	6/14/2012 6:01:08 PM
Motor Oil Range Organics (MRO)	5.1	5.0		mg/L	1	6/14/2012 6:01:08 PM
Surr: DNOP	122	61.3-164		%REC	1	6/14/2012 6:01:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/14/2012 11:20:00 AM
Surr: BFB	116	69.3-120		%REC	10	6/14/2012 11:20:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.015	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 6:56:59 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 6:56:59 PM
Iron	0.24	0.020		mg/L	1	6/28/2012 6:56:59 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 6:56:59 PM
Manganese	0.043	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 6:56:59 PM
Zinc	0.096	0.010		mg/L	1	6/28/2012 6:56:59 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.018	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Chromium	ND	0.0060		mg/L	1	6/27/2012 7:48:06 PM
Copper	0.062	0.0060		mg/L	1	6/27/2012 7:48:06 PM
Iron	0.52	0.020	*	mg/L	1	6/27/2012 7:48:06 PM
Lead	0.0060	0.0050		mg/L	1	6/27/2012 7:48:06 PM
Manganese	0.046	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 7:48:06 PM
Zinc	0.12	0.010		mg/L	1	6/27/2012 7:48:06 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0050		mg/L	5	6/29/2012 4:39:17 PM
Selenium	ND	0.0050		mg/L	5	6/29/2012 4:39:17 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 11:01:15 AM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0027	0.0025		mg/L	2.5	6/20/2012 7:32:55 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:36:50 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:32:55 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0020		mg/L	5	6/19/2012 5:15:04 PM
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	270	2.0		mg/L	1	6/19/2012 6:12:00 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

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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:50:00 PM

Lab ID: 1206537-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Toluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 1:37:31 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 1:37:31 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 1:37:31 AM
Acetone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromoform	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 1:37:31 AM
2-Butanone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Carbon disulfide	230	100		µg/L	10	6/15/2012 1:37:31 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Chloroform	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 1:37:31 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 1:37:31 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 1:37:31 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

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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Pilot Eff**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 4:50:00 PM**Lab ID:** 1206537-001**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 1:37:31 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Styrene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 1:37:31 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 1:37:31 AM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	10	6/15/2012 1:37:31 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	6/15/2012 1:37:31 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	10	6/15/2012 1:37:31 AM
Surr: Toluene-d8	93.4	70-130		%REC	10	6/15/2012 1:37:31 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

- 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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:20:00 PM

Lab ID: 1206537-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	98	1.0		mg/L	1	6/14/2012 6:27:32 PM
Motor Oil Range Organics (MRO)	8.4	5.0		mg/L	1	6/14/2012 6:27:32 PM
Surr: DNOP	143	61.3-164		%REC	1	6/14/2012 6:27:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	130	25		mg/L	500	6/14/2012 11:50:41 AM
Surr: BFB	93.1	69.3-120		%REC	500	6/14/2012 11:50:41 AM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	46	5.0	*	mg/L	50	6/14/2012 3:02:20 AM
Chloride	430	25		mg/L	50	6/14/2012 3:02:20 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 2:51:06 AM
Bromide	1.5	1.0		mg/L	10	6/14/2012 2:51:06 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 2:51:06 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 2:51:06 AM
Sulfate	960	25		mg/L	50	6/14/2012 3:02:20 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.071	0.0020		mg/L	1	6/28/2012 7:06:38 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:06:38 PM
Calcium	83	1.0		mg/L	1	7/3/2012 9:58:04 AM
Chromium	0.0084	0.0060		mg/L	1	6/28/2012 7:06:38 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 7:06:38 PM
Iron	3.3	0.10	*	mg/L	5	6/28/2012 7:10:10 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:06:38 PM
Magnesium	22	1.0		mg/L	1	6/28/2012 7:06:38 PM
Manganese	0.12	0.0020	*	mg/L	1	6/28/2012 7:06:38 PM
Potassium	57	1.0		mg/L	1	6/28/2012 7:06:38 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:06:38 PM
Sodium	630	10		mg/L	10	7/3/2012 10:01:26 AM
Zinc	0.17	0.010		mg/L	1	6/28/2012 7:06:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.28	0.0020		mg/L	1	6/27/2012 7:55:49 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 7:55:49 PM
Chromium	0.012	0.0060		mg/L	1	6/27/2012 7:55:49 PM
Copper	0.036	0.0060		mg/L	1	6/27/2012 7:55:49 PM
Iron	11	0.40	*	mg/L	20	6/28/2012 3:24:35 PM
Lead	0.0078	0.0050		mg/L	1	6/27/2012 7:55:49 PM
Manganese	0.14	0.0020	*	mg/L	1	6/27/2012 7:55:49 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 7:55:49 PM
Zinc	0.49	0.010		mg/L	1	6/27/2012 7:55:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV

Qualifiers: * / X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
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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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:20:00 PM

Lab ID: 1206537-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0050		mg/L	5	6/29/2012 4:41:09 PM
Selenium	0.015	0.0050		mg/L	5	6/29/2012 4:41:09 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 11:05:01 AM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0073	0.0025		mg/L	2.5	6/20/2012 7:44:46 PM
Selenium	0.0069	0.0025		mg/L	2.5	6/21/2012 3:38:42 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:44:46 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	0.0046	0.0020	*	mg/L	5	6/19/2012 5:16:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Aniline	600	50		µg/L	1	6/18/2012 10:52:24 AM
Anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 10:52:24 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Carbazole	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Chrysene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 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

- 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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:20:00 PM

Lab ID: 1206537-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dimethylphenol	530	50		µg/L	1	6/18/2012 10:52:24 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Fluorene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Isophorone	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1-Methylnaphthalene	840	50		µg/L	1	6/18/2012 10:52:24 AM
2-Methylnaphthalene	1300	500		µg/L	10	6/18/2012 2:50:28 PM
2-Methylphenol	2000	500		µg/L	10	6/18/2012 2:50:28 PM
3+4-Methylphenol	4200	500		µg/L	10	6/18/2012 2:50:28 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Naphthalene	530	50		µg/L	1	6/18/2012 10:52:24 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Phenanthrene	200	50		µg/L	1	6/18/2012 10:52:24 AM
Phenol	7800	500		µg/L	10	6/18/2012 2:50:28 PM
Pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Pyridine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Surr: 2,4,6-Tribromophenol	83.8	44.2-126		%REC	1	6/18/2012 10:52:24 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
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 R RPD outside accepted recovery limits
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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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:20:00 PM

Lab ID: 1206537-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorobiphenyl	65.5	37-114		%REC	1	6/18/2012 10:52:24 AM
Surr: 2-Fluorophenol	34.6	23.4-98		%REC	1	6/18/2012 10:52:24 AM
Surr: 4-Terphenyl-d14	82.1	41.3-116		%REC	1	6/18/2012 10:52:24 AM
Surr: Nitrobenzene-d5	79.3	39.5-118		%REC	1	6/18/2012 10:52:24 AM
Surr: Phenol-d5	54.3	20.9-95.9		%REC	1	6/18/2012 10:52:24 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	8900	100		µg/L	100	6/15/2012 2:34:08 AM
Toluene	14000	1000		µg/L	1000	6/15/2012 2:05:49 AM
Ethylbenzene	1400	100		µg/L	100	6/15/2012 2:34:08 AM
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,4-Trimethylbenzene	1600	100		µg/L	100	6/15/2012 2:34:08 AM
1,3,5-Trimethylbenzene	560	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Naphthalene	390	200		µg/L	100	6/15/2012 2:34:08 AM
1-Methylnaphthalene	ND	400		µg/L	100	6/15/2012 2:34:08 AM
2-Methylnaphthalene	480	400		µg/L	100	6/15/2012 2:34:08 AM
Acetone	7200	1000		µg/L	100	6/15/2012 2:34:08 AM
Bromobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromodichloromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromoform	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromomethane	ND	300		µg/L	100	6/15/2012 2:34:08 AM
2-Butanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Carbon disulfide	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Carbon Tetrachloride	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chloroethane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Chloroform	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chloromethane	ND	300		µg/L	100	6/15/2012 2:34:08 AM
2-Chlorotoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
4-Chlorotoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
cis-1,2-DCE	ND	100		µg/L	100	6/15/2012 2:34:08 AM
cis-1,3-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Dibromochloromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Dibromomethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,3-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,4-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Dichlorodifluoromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1-Dichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 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

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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS Eff

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:20:00 PM

Lab ID: 1206537-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1-Dichloroethene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichloropropane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,3-Dichloropropane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
2,2-Dichloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
1,1-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Hexachlorobutadiene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
2-Hexanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Isopropylbenzene	140	100		µg/L	100	6/15/2012 2:34:08 AM
4-Isopropyltoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
4-Methyl-2-pentanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Methylene Chloride	ND	300		µg/L	100	6/15/2012 2:34:08 AM
n-Butylbenzene	100	100		µg/L	100	6/15/2012 2:34:08 AM
n-Propylbenzene	280	100		µg/L	100	6/15/2012 2:34:08 AM
sec-Butylbenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Styrene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
tert-Butylbenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Tetrachloroethene (PCE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
trans-1,2-DCE	ND	100		µg/L	100	6/15/2012 2:34:08 AM
trans-1,3-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,1-Trichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,2-Trichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Trichloroethene (TCE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Trichlorofluoromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,3-Trichloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Vinyl chloride	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Xylenes, Total	8400	150		µg/L	100	6/15/2012 2:34:08 AM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	100	6/15/2012 2:34:08 AM
Surr: 4-Bromofluorobenzene	85.1	70-130		%REC	100	6/15/2012 2:34:08 AM
Surr: Dibromofluoromethane	121	69.8-130		%REC	100	6/15/2012 2:34:08 AM
Surr: Toluene-d8	95.1	70-130		%REC	100	6/15/2012 2:34:08 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DBD
Conductivity	4300	0.010		µmhos/cm	1	6/14/2012 11:48:17 AM
SM4500-H+B: PH						Analyst: DBD
pH	8.40	1.68	H	pH units	1	6/14/2012 11:48:17 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

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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:40:00 PM

Lab ID: 1206537-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	9.0	1.0		mg/L	1	6/14/2012 6:53:56 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 6:53:56 PM
Surr: DNOP	134	61.3-164		%REC	1	6/14/2012 6:53:56 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/14/2012 12:21:12 PM
Surr: BFB	98.2	69.3-120		%REC	10	6/14/2012 12:21:12 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	58	5.0	*	mg/L	50	6/14/2012 2:17:24 AM
Chloride	950	25		mg/L	50	6/14/2012 2:17:24 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 2:06:10 AM
Bromide	1.6	1.0		mg/L	10	6/14/2012 2:06:10 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 2:06:10 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 2:06:10 AM
Sulfate	1200	25		mg/L	50	6/14/2012 2:17:24 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.047	0.0020		mg/L	1	6/28/2012 7:13:58 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:13:58 PM
Calcium	100	10		mg/L	10	7/11/2012 11:07:42 AM
Chromium	0.0082	0.0060		mg/L	1	6/28/2012 7:13:58 PM
Copper	0.020	0.0060		mg/L	1	6/28/2012 7:13:58 PM
Iron	3.9	0.10	*	mg/L	5	6/28/2012 7:17:28 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:13:58 PM
Magnesium	34	1.0		mg/L	1	6/28/2012 7:13:58 PM
Manganese	0.11	0.0020	*	mg/L	1	6/28/2012 7:13:58 PM
Potassium	170	5.0		mg/L	5	6/28/2012 7:17:28 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:13:58 PM
Sodium	840	10		mg/L	10	7/11/2012 11:07:42 AM
Zinc	0.26	0.010		mg/L	1	6/28/2012 7:13:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Chromium	ND	0.0060		mg/L	1	6/27/2012 8:02:24 PM
Copper	ND	0.0060		mg/L	1	6/27/2012 8:02:24 PM
Iron	ND	0.020		mg/L	1	6/27/2012 8:02:24 PM
Lead	ND	0.0050		mg/L	1	6/27/2012 8:02:24 PM
Manganese	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 8:02:24 PM
Zinc	ND	0.010		mg/L	1	6/27/2012 8:02:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV

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

Analytical ReportLab Order **1206537**Date Reported: **7/12/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** AL-2 To EP-1**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 4:40:00 PM**Lab ID:** 1206537-003**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0081	0.0020		mg/L	2	6/29/2012 4:43:01 PM
Selenium	0.014	0.0020		mg/L	2	6/29/2012 4:43:01 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 1:24:08 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0088	0.0025		mg/L	2.5	6/20/2012 7:48:42 PM
Selenium	0.025	0.0025		mg/L	2.5	6/21/2012 3:40:34 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:48:42 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	0.0025	0.0010	*	mg/L	5	6/19/2012 5:18:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Aniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 11:22:16 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Carbazole	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Chrysene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 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

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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:40:00 PM

Lab ID: 1206537-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Fluorene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Isophorone	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Naphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Phenanthrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Phenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pyridine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Surr: 2,4,6-Tribromophenol	97.2	44.2-126		%REC	1	6/18/2012 11:22:16 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

- 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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** AL-2 To EP-1**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 4:40:00 PM**Lab ID:** 1206537-003**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorobiphenyl	77.4	37-114		%REC	1	6/18/2012 11:22:16 AM
Surr: 2-Fluorophenol	64.0	23.4-98		%REC	1	6/18/2012 11:22:16 AM
Surr: 4-Terphenyl-d14	88.1	41.3-116		%REC	1	6/18/2012 11:22:16 AM
Surr: Nitrobenzene-d5	84.1	39.5-118		%REC	1	6/18/2012 11:22:16 AM
Surr: Phenol-d5	51.2	20.9-95.9		%REC	1	6/18/2012 11:22:16 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Toluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 3:02:27 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 3:02:27 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 3:02:27 AM
Acetone	110	100		µg/L	10	6/15/2012 3:02:27 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromoform	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 3:02:27 AM
2-Butanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Carbon disulfide	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Chloroform	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 3:02:27 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 3:02:27 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 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

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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:40:00 PM

Lab ID: 1206537-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 3:02:27 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Styrene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 3:02:27 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 3:02:27 AM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	10	6/15/2012 3:02:27 AM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	10	6/15/2012 3:02:27 AM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/15/2012 3:02:27 AM
Surr: Toluene-d8	98.3	70-130		%REC	10	6/15/2012 3:02:27 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

- 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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:26:00 AM

Lab ID: 1206537-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:30:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:30:50 AM
Acetone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 3:30:50 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

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

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 9:26:00 AM**Lab ID:** 1206537-004**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 3:30:50 AM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	6/15/2012 3:30:50 AM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	6/15/2012 3:30:50 AM
Surr: Dibromofluoromethane	117	69.8-130		%REC	1	6/15/2012 3:30:50 AM
Surr: Toluene-d8	96.8	70-130		%REC	1	6/15/2012 3:30:50 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
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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 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206537-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:58:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:58:59 AM
Acetone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM

Qualifiers:

- *X Value exceeds Maximum Contaminant Level.
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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- B Analyte detected in the associated Method Blank
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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206537

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206537-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 3:58:59 AM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	6/15/2012 3:58:59 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/15/2012 3:58:59 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/15/2012 3:58:59 AM
Surr: Toluene-d8	99.3	70-130		%REC	1	6/15/2012 3:58:59 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

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



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

Date Received : June 15, 2012
Description :
Sample ID : 1206537-001F PILOT EFF
Collected By :
Collection Date : 06/12/12 16:50

ESC Sample # : L580582-01

Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	690	10.	mg/l	410.4	06/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/21/12 09:17 Printed: 06/21/12 09:17



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L580582

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 21, 2012

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed			
		Units	% Rec						
COD	< 10	mg/l			WG598723	06/20/12 14:48			
Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch		
COD	mg/l	1400	1400	1.42	5	L580263-01	WG598723		
COD	mg/l	7600	7800	2.47	5	L580219-01	WG598723		
Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch			
		Known Val	Result						
COD	mg/l	230	229.	99.6	90-110	WG598723			
Analyte	Units	Result	Ref	Duplicate %Rec	Limit	RPD	Limit	Batch	
COD	mg/l	230.	229.	100.	90-110	0.436	5	WG598723	
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch	
COD	mg/l	626.	220.	400	102.	90-110	L580499-01	WG598723	
Analyte	Units	MSD	Ref	Duplicate %Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	622.	626.	100.	90-110	0.641	5	L580499-01	WG598723

Batch number / Run number / Sample number cross reference

WG598723: R2219533: L580582-01

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106272	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106273	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	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	54	1.0	50.00	5.206	98.2	70	130			
Silver	0.091	0.0050	0.1000	0	91.0	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID	1206170-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106276	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Potassium	54	1.0	50.00	5.206	97.4	70	130	0.708	20	
Silver	0.092	0.0050	0.1000	0	91.8	70	130	0.864	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3866	RunNo:	3866					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109873	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3866	RunNo:	3866					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109874	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	53	1.0	50.00	0	105	85	115			
Sodium	49	1.0	50.00	0	98.0	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3866	RunNo:	3866					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109902	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3866	RunNo:	3866					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109902	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	104.6	102	70	130			

Sample ID	1206170-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3866	RunNo:	3866					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109903	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	104.6	102	70	130	0.0767	20	

Sample ID	1206572-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112982	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID	1206572-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112983	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113009	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113010	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	57	1.0	50.00	0	113	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2410	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	2410	RunNo:	3694					
Prep Date:	6/15/2012	Analysis Date:	6/26/2012	SeqNo:	104385	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	LCS-2410	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	2410	RunNo:	3694					
Prep Date:	6/15/2012	Analysis Date:	6/26/2012	SeqNo:	104386	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.48	0.0020	0.5000	0	95.0	85	115			
Cadmium	0.50	0.0020	0.5000	0.0005700	98.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Iron	0.47	0.020	0.5000	0	93.8	85	115			
Lead	0.47	0.0050	0.5000	0	93.8	85	115			
Manganese	0.47	0.0020	0.5000	0.0002800	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.2	85	115			

Sample ID	MB-2410	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	2410	RunNo:	3710					
Prep Date:	6/15/2012	Analysis Date:	6/27/2012	SeqNo:	105341	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	LCS-2410	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	2410	RunNo:	3710					
Prep Date:	6/15/2012	Analysis Date:	6/27/2012	SeqNo:	105342	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Copper	0.51	0.0060	0.5000	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R3814		RunNo:	3814			
Prep Date:				Analysis Date:	6/29/2012		SeqNo:	107939		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130				
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130				

Sample ID	1206698-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107968		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107969		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107971	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107972		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2410	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2410	RunNo:	3586					
Prep Date:	6/15/2012	Analysis Date:	6/20/2012	SeqNo:	101231	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Sample ID	MB-2410	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2410	RunNo:	3597					
Prep Date:	6/15/2012	Analysis Date:	6/21/2012	SeqNo:	101631	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*~ Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2463	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99864	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2463	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99865	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID	1206661-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99867	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID	1206661-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	95995	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								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	95996	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID	1206484-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	96000	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115			

Sample ID	1206484-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	96001	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206484-001AMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID:	R3429		RunNo:	3429				
Prep Date:			Analysis Date:	6/13/2012		SeqNo:	96001		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20		
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115	0.163	20		

Sample ID	1206538-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	96008	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID	1206538-001AMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID:	R3429		RunNo:	3429				
Prep Date:			Analysis Date:	6/13/2012		SeqNo:	96009		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S	
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S	
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S	
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S	
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2395		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	PBW		Batch ID:	2395		RunNo:	3445				
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96352		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	1.3		1.000		127	61.3	164				

Sample ID	LCS-2395		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSW		Batch ID:	2395		RunNo:	3445				
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96353		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157				
Surr: DNOP	0.53		0.5000		106	61.3	164				

Sample ID	LCSD-2395		SampType:	LCSD		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSS02		Batch ID:	2395		RunNo:	3445				
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96354		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23		
rr: DNOP	0.50		0.5000		101	61.3	164	0	0		

Qualifiers:

*~ Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID	1206537-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	Pilot Eff	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID	1206537-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	Pilot Eff	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96560	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID	B1	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	99408	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96906	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.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID: 5ml-rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96906	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	1.0								
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	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96910	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96910	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID	1206442-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96911	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID: 1206442-001a msd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96912		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID	b4	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R3458		RunNo:	3458				
Prep Date:		Analysis Date:	6/14/2012		SeqNo:	96944	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								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96944		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96944		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
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								
1,1,3-Trichloropropane	ND	2.0								
Mercuric chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96945		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

- *~ Value exceeds Maximum Contaminant Level.
- 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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206544-001a ms	SampType:	MS	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID:	R3458	RunNo: 3458						
Prep Date:		Analysis Date:	6/15/2012	SeqNo: 96946			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID	1206544-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	96947	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9	
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5	
Chlorobenzene	170	10	200.0	0	86.7	70	130	6.59	17.7	
1,1-Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5	
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9	
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0	
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0	

Qualifiers:

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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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	Units:	µg/L			
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	35								
4-Bromophenyl phenyl ether	ND	10								
' benzyl phthalate	ND	10								
azole	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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- Value above quantitation range
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- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	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	20								
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	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

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
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	Ics-2383		SampType: LCS	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 2383	RunNo: 3511						
Prep Date:	6/14/2012		Analysis Date: 6/18/2012	SeqNo: 98781		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID	Icsd-2383		SampType: LCSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 2383	RunNo: 3511						
Prep Date:	6/14/2012		Analysis Date: 6/18/2012	SeqNo: 98783		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
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- 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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2381	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98741	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB-2381	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98742	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-2381	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98743	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.2	84.6	115.4			

Sample ID	LCSD-2381	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98744	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	86.7	84.6	115.4	0.581	20	

Sample ID	1206501-001ADUP	SampType:	DUP	TestCode:	SM5210B: BOD					
Client ID:	BatchQC	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98746	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	28	2.0						0.108	20	

Qualifiers:

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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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206559-001B dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R3451	RunNo:	3451					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96546	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	190	0.010						0.417	20	

Qualifiers:

*~ Value exceeds Maximum Contaminant Level.
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#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206559-001B dup		SampType:	DUP		TestCode:	SM4500-H+B: pH				
Client ID:	BatchQC		Batch ID:	R3451		RunNo:	3451				
Prep Date:			Analysis Date:	6/14/2012		SeqNo:	96532		Units:	pH units	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
pH	7.87	1.68								H	

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.
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ND Not Detected at the Reporting Limit
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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: 1206537

Received by/date:

Logged By: Ashley Gallegos

6/13/2012 1:35:00 PM

Completed By: Ashley Gallegos

6/13/2012 2:28:53 PM

Reviewed By:

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 $>0^{\circ}\text{C}$ 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
Added 1mL HNO_3 to -001E and -002F for acceptable pH.
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: 9
14. Are matrices correctly identified on Chain of Custody? Yes ✓ No
15. Is it clear what analyses were requested? Yes ✓ No Adjusted? yes
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ✓ No Checked by: mg

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	1.1	Good	Not Present			



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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206544

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:45:00 PM

Lab ID: 1206544-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JPM
Diesel Range Organics (DRO)	9.4	1.0		mg/L	1	6/14/2012 7:20:07 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 7:20:07 PM
Surr: DNOP	134	61.3-164		%REC	1	6/14/2012 7:20:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.50	0.50		mg/L	10	6/18/2012 5:29:58 PM
Surr: BFB	105	69.3-120		%REC	10	6/18/2012 5:29:58 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Chloride	640	25		mg/L	50	6/14/2012 3:47:16 AM
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	130	2.0		mg/L	1	6/19/2012 6:12:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Aniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 11:51:54 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Carbazole	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Chrysene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 11:51:54 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:45:00 PM

Lab ID: 1206544-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Fluorene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Isophorone	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Naphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Phenanthrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Phenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pyridine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:45:00 PM

Lab ID: 1206544-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2,4,6-Tribromophenol	104	44.2-126		%REC	1	6/18/2012 11:51:54 AM
Surr: 2-Fluorobiphenyl	84.1	37-114		%REC	1	6/18/2012 11:51:54 AM
Surr: 2-Fluorophenol	69.8	23.4-98		%REC	1	6/18/2012 11:51:54 AM
Surr: 4-Terphenyl-d14	92.4	41.3-116		%REC	1	6/18/2012 11:51:54 AM
Surr: Nitrobenzene-d5	92.4	39.5-118		%REC	1	6/18/2012 11:51:54 AM
Surr: Phenol-d5	54.6	20.9-95.9		%REC	1	6/18/2012 11:51:54 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Toluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 4:26:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 4:26:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 4:26:59 AM
Acetone	1100	100		µg/L	10	6/15/2012 4:26:59 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromoform	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 4:26:59 AM
2-Butanone	210	100		µg/L	10	6/15/2012 4:26:59 AM
Carbon disulfide	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Chloroform	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 4:26:59 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 4:26:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 4:26:59 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 3:45:00 PM

Lab ID: 1206544-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 4:26:59 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Styrene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 4:26:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 4:26:59 AM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	10	6/15/2012 4:26:59 AM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	10	6/15/2012 4:26:59 AM
Surr: Dibromofluoromethane	120	69.8-130		%REC	10	6/15/2012 4:26:59 AM
Surr: Toluene-d8	95.0	70-130		%REC	10	6/15/2012 4:26:59 AM
SM4500-H+B: PH						Analyst: DBD
pH	7.96	1.68	H	pH units	1	6/14/2012 11:52:25 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

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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:00:00 PM

Lab ID: 1206544-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	12	1.0		mg/L	1	6/14/2012 7:45:59 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 7:45:59 PM
Surr: DNOP	131	61.3-164		%REC	1	6/14/2012 7:45:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/18/2012 7:01:59 PM
Surr: BFB	86.5	69.3-120		%REC	10	6/18/2012 7:01:59 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	65	5.0	*	mg/L	50	6/14/2012 3:24:49 AM
Chloride	980	50		mg/L	100	6/27/2012 11:27:30 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 3:13:34 AM
Bromide	1.9	1.0		mg/L	10	6/14/2012 3:13:34 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 3:13:34 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 3:13:34 AM
Sulfate	1400	25		mg/L	50	6/14/2012 3:24:49 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.039	0.0020		mg/L	1	6/28/2012 7:21:17 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:21:17 PM
Calcium	94	20		mg/L	20	7/11/2012 11:10:39 AM
Chromium	ND	0.0060		mg/L	1	6/28/2012 7:21:17 PM
Copper	0.0092	0.0060		mg/L	1	6/28/2012 7:21:17 PM
Iron	2.5	0.10	*	mg/L	5	6/28/2012 7:24:48 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:21:17 PM
Magnesium	33	1.0		mg/L	1	6/28/2012 7:21:17 PM
Manganese	0.11	0.0020	*	mg/L	1	6/28/2012 7:21:17 PM
Potassium	170	5.0		mg/L	5	6/28/2012 7:24:48 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:21:17 PM
Sodium	850	20		mg/L	20	7/11/2012 11:10:39 AM
Zinc	0.14	0.010		mg/L	1	6/28/2012 7:21:17 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.10	0.0020		mg/L	1	6/28/2012 12:14:39 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 12:14:39 PM
Chromium	0.0088	0.0060		mg/L	1	6/28/2012 12:14:39 PM
Copper	0.020	0.0060		mg/L	1	6/28/2012 12:14:39 PM
Iron	5.3	0.20	*	mg/L	10	6/28/2012 3:34:32 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 12:14:39 PM
Manganese	0.12	0.0020	*	mg/L	1	6/28/2012 12:14:39 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 12:14:39 PM
Zinc	0.31	0.010		mg/L	1	6/28/2012 12:14:39 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:00:00 PM

Lab ID: 1206544-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0068	0.0020		mg/L	2	6/29/2012 4:46:45 PM
Selenium	0.015	0.0020		mg/L	2	6/29/2012 4:46:45 PM
Uranium	ND	0.0020		mg/L	2	7/3/2012 11:14:26 AM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0087	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
Selenium	0.023	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	0.0025	0.0010	*	mg/L	5	6/19/2012 5:23:55 PM
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	85	2.0		mg/L	1	6/19/2012 6:12:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Aniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Azobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzoic acid	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 12:21:33 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Carbazole	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Chrysene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:00:00 PM

Lab ID: 1206544-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Dibenzofuran	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Fluorene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Isophorone	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Naphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Phenanthrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Phenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pyridine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:00:00 PM

Lab ID: 1206544-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Surr: 2,4,6-Tribromophenol	92.1	44.2-126		%REC	1	6/18/2012 12:21:33 PM
Surr: 2-Fluorobiphenyl	66.0	37-114		%REC	1	6/18/2012 12:21:33 PM
Surr: 2-Fluorophenol	58.7	23.4-98		%REC	1	6/18/2012 12:21:33 PM
Surr: 4-Terphenyl-d14	78.7	41.3-116		%REC	1	6/18/2012 12:21:33 PM
Surr: Nitrobenzene-d5	74.9	39.5-118		%REC	1	6/18/2012 12:21:33 PM
Surr: Phenol-d5	46.3	20.9-95.9		%REC	1	6/18/2012 12:21:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:50:38 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:50:38 AM
Acetone	15	10		µg/L	1	6/15/2012 5:50:38 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 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

- 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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl To EP-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 4:00:00 PM

Lab ID: 1206544-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 5:50:38 AM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	6/15/2012 5:50:38 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/15/2012 5:50:38 AM
Surr: Dibromofluoromethane	121	69.8-130		%REC	1	6/15/2012 5:50:38 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	6/15/2012 5:50:38 AM
SM4500-H+B: PH						Analyst: DBD
pH	7.98	1.68	H	pH units	1	6/14/2012 11:56:33 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Equip Blank**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 8:15:00 AM**Lab ID:** 1206544-003**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:18:42 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:18:42 AM
Acetone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 6:18:42 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

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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Equip Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 8:15:00 AM

Lab ID: 1206544-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 6:18:42 AM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	6/15/2012 6:18:42 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	1	6/15/2012 6:18:42 AM
Surr: Dibromofluoromethane	116	69.8-130		%REC	1	6/15/2012 6:18:42 AM
Surr: Toluene-d8	94.8	70-130		%REC	1	6/15/2012 6:18:42 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

- 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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 8:15:00 AM

Lab ID: 1206544-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:46:57 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:46:57 AM
Acetone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 6:46:57 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 8:15:00 AM

Lab ID: 1206544-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 6:46:57 AM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	1	6/15/2012 6:46:57 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	6/15/2012 6:46:57 AM
Surr: Dibromofluoromethane	118	69.8-130		%REC	1	6/15/2012 6:46:57 AM
Surr: Toluene-d8	99.0	70-130		%REC	1	6/15/2012 6:46:57 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

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

Analytical Report

Lab Order 1206544

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206544-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:15:14 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:15:14 AM
Acetone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 7:15:14 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

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 1206544

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206544-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 7:15:14 AM
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1	6/15/2012 7:15:14 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/15/2012 7:15:14 AM
Surr: Dibromofluoromethane	116	69.8-130		%REC	1	6/15/2012 7:15:14 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	6/15/2012 7:15:14 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

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



YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

Date Received : June 15, 2012
Description :
Sample ID : 1206544-001F INF TO AL-2
Collected By :
Collection Date : 06/12/12 15:45

ESC Sample # : L580584-01
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	610	10.	mg/l	410.4	06/20/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 06/21/12 09:17 Printed: 06/21/12 09:17



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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

Date Received : June 15, 2012
Description :
Sample ID : 1206544-002H INF TO EP-1
Collected By :
Collection Date : 06/12/12 16:00

ESC Sample # : L580584-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	490	10.	mg/l	410.4	06/20/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/21/12 09:17 Printed: 06/21/12 09:17



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L580584

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 21, 2012

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed			
		Units	% Rec						
COD	< 10	mg/l			WG598723	06/20/12 14:48			
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch		
COD	mg/l	1400	1400	1.42	5	L580263-01	WG598723		
COD	mg/l	7600	7800	2.47	5	L580219-01	WG598723		
Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch			
		Known Val	Result						
COD	mg/l	230	229.	99.6	90-110	WG598723			
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch	
COD	mg/l	230.	229.	100.	90-110	0.436	5	WG598723	
Analyte	Units	Matrix Spike		% Rec	Limit	Ref Samp	Batch		
		MS Res	Ref Res	TV					
COD	mg/l	626.	220.	400	102.	90-110	L580499-01	WG598723	
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	622.	626.	100.	90-110	0.641	5	L580499-01	WG598723

Batch number /Run number / Sample number cross reference

WG598723: R2219533: L580584-01 02

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106272	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106273	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	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	54	1.0	50.00	5.206	98.2	70	130			
Silver	0.091	0.0050	0.1000	0	91.0	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID	1206170-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106276	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
ium	54	1.0	50.00	5.206	97.4	70	130	0.708	20	
Silver	0.092	0.0050	0.1000	0	91.8	70	130	0.864	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	1206572-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112982	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID	1206572-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112983	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113009	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- E 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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113009	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113010	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	57	1.0	50.00	0	113	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	2411		RunNo:	3742				
Prep Date:	6/15/2012		Analysis Date:	6/28/2012		SeqNo:	105873		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Copper	ND	0.0060									
Iron	ND	0.020									
Lead	ND	0.0050									
Manganese	ND	0.0020									
Silver	ND	0.0050									
Zinc	ND	0.010									

Sample ID	LCS-2411		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 2411		RunNo: 3742					
Prep Date:	6/15/2012		Analysis Date: 6/28/2012		SeqNo: 105874		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

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 |
| R RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107939	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID	1206698-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107949	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107968	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107969	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107971	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107972	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206593-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

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 |
| R RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2411	RunNo:	3745					
Prep Date:	6/15/2012	Analysis Date:	6/27/2012	SeqNo:	105997	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2463	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99864	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2463	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99865	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID	1206661-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99867	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID	1206661-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

E 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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R3429		RunNo: 3429							
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 95995		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								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R3429		RunNo: 3429							
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 95996		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID 1206484-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R3429		RunNo: 3429							
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 96000		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115			

Sample ID 1206484-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R3429		RunNo: 3429							
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 96001		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206484-001AMSD		SampType: MSD	TestCode: EPA Method 300.0: Anions						
Client ID:	BatchQC		Batch ID: R3429	RunNo: 3429						
Prep Date:			Analysis Date: 6/13/2012	SeqNo: 96001		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Sample ID	1206538-001AMS	SampType: MS	TestCode: EPA Method 300.0: Anions							
Client ID:	BatchQC	Batch ID: R3429	RunNo: 3429							
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 96008		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID	1206538-001AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions							
Client ID:	BatchQC	Batch ID: R3429	RunNo: 3429							
Print Date:	Analysis Date: 6/13/2012		SeqNo: 96009		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P)	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R3741		RunNo: 3741						
Prep Date:	Analysis Date: 6/27/2012		SeqNo: 105798		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: R3741		RunNo: 3741						
Prep Date:	Analysis Date: 6/27/2012		SeqNo: 105799		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	94.9	90	110			

Qualifiers:

- | | | | |
|---|--|----|--|
| V | 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206B68-001DMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	105849	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	0.50	5.000	9.623	106	87.8	111			

Sample ID	1206B68-001DMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	105850	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	0.50	5.000	9.623	106	87.8	111	0.196	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2395	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96352	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	1.3		1.000		127	61.3	164			

Sample ID	LCS-2395	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96353	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID	LCSD-2395	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96354	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

E	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID B5	SampType: MBLK		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: PBW	Batch ID: R3518		RunNo: 3518							
Prep Date:	Analysis Date: 6/18/2012		SeqNo: 99056		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.2	69.3	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: LCSW	Batch ID: R3518		RunNo: 3518							
Prep Date:	Analysis Date: 6/18/2012		SeqNo: 99057		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.2	101	123			S
Surr: BFB	18		20.00		92.0	69.3	120			

Sample ID 1206544-001AMS	SampType: MS		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: Infl to AL-2	Batch ID: R3518		RunNo: 3518							
Prep Date:	Analysis Date: 6/18/2012		SeqNo: 99068		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	5.3	0.50	5.000	0.5000	96.7	75.4	121			
Surr: BFB	190		200.0		92.7	69.3	120			

Sample ID 1206544-001AMSD	SampType: MSD		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: Infl to AL-2	Batch ID: R3518		RunNo: 3518							
Prep Date:	Analysis Date: 6/18/2012		SeqNo: 99069		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	5.1	0.50	5.000	0.5000	92.2	75.4	121	4.29	10.5	
Surr: BFB	260		200.0		130	69.3	120	0	0	S

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: PBW	Batch ID: R3557		RunNo: 3557							
Prep Date:	Analysis Date: 6/19/2012		SeqNo: 100247		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: BFB	20		20.00		99.3	69.3	120			
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Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015B: Gasoline Range							
Client ID: LCSW	Batch ID: R3557		RunNo: 3557							
Prep Date:	Analysis Date: 6/19/2012		SeqNo: 100248		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: BFB	21		20.00		107	69.3	120			
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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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206669-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100405	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		118	69.3	120			

Sample ID	1206669-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3557	RunNo:	3557					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	100406	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	69.3	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96906	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:

*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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96906	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	1.0								
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	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96910	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96910		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID 1206442-001a ms	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96911		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID 1206442-001a msd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96912		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID b4	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96944		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								

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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96944	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
form	ND	1.0								
Cnloromethane	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								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
Value above quantitation range	H	Holding times for preparation or analysis exceeded
Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96944		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
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		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R3458		RunNo: 3458							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96945		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206544-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	Infl to AL-2	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	96946	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID	1206544-001a msd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	Infl to AL-2			Batch ID:	R3458		RunNo:	3458			
Prep Date:				Analysis Date:	6/15/2012		SeqNo:	96947		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9		
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5		
benzene	170	10	200.0	0	86.7	70	130	6.59	17.7		
1,1-Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5		
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9		
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0		
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0		
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0		
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0		

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	Units:	µg/L			
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	35								
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:

* / 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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	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								
aniline	ND	10								
4-Nitroaniline	ND	20								
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	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Qualifiers:

E	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
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	Ics-2383		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 2383			RunNo: 3511				
Prep Date:	6/14/2012		Analysis Date: 6/18/2012			SeqNo: 98781		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID	Icsd-2383		SampType: LCSD			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSS02		Batch ID: 2383			RunNo: 3511				
Prep Date:	6/14/2012		Analysis Date: 6/18/2012			SeqNo: 98783		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2381	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98741	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB-2381	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98742	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-2381	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98743	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.2	84.6	115.4			

Sample ID	LCSD-2381	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98744	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	86.7	84.6	115.4	0.581	20	

Sample ID	1206501-001ADUP	SampType:	DUP	TestCode:	SM5210B: BOD					
Client ID:	BatchQC	Batch ID:	2381	RunNo:	3509					
Prep Date:	6/14/2012	Analysis Date:	6/19/2012	SeqNo:	98746	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	28	2.0						0.108	20	

Qualifiers:

- | | | | |
|---|--|----|--|
| E | 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206559-001B dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R3451	RunNo:	3451					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96532	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.87	1.68								H

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



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: 1206544

Received by/date:

Logged By: Ashley Gallegos 6/13/2012 1:35:00 PM

Completed By: Ashley Gallegos 6/13/2012 2:55:49 PM

Reviewed By:

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 $>0^{\circ}\text{C}$ 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 # of preserved bottles checked for pH: 5
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: ms

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	1.1	Good	Not Present			



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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206546

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 2:20:00 PM

Lab ID: 1206546-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 8:11:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 8:11:52 PM
Surr: DNOP	130	61.3-164		%REC	1	6/14/2012 8:11:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	6/14/2012 12:51:39 PM
Surr: BFB	102	69.3-120		%REC	5	6/14/2012 12:51:39 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	3.4	0.50		mg/L	5	6/14/2012 3:58:30 AM
Chloride	1300	50		mg/L	100	6/25/2012 3:42:24 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 3:58:30 AM
Bromide	3.5	0.50		mg/L	5	6/14/2012 3:58:30 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/14/2012 3:58:30 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 3:58:30 AM
Sulfate	140	2.5		mg/L	5	6/14/2012 3:58:30 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	1.1	0.010		mg/L	5	6/28/2012 8:54:01 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 8:50:41 PM
Calcium	290	5.0		mg/L	5	6/28/2012 8:54:01 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 8:50:41 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 8:50:41 PM
Iron	4.0	0.10	*	mg/L	5	6/28/2012 8:54:01 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 8:50:41 PM
Magnesium	68	1.0		mg/L	1	6/28/2012 8:50:41 PM
Manganese	2.9	0.010	*	mg/L	5	6/28/2012 8:54:01 PM
Potassium	2.9	1.0		mg/L	1	7/5/2012 5:31:21 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:40:09 PM
Sodium	980	10		mg/L	10	7/5/2012 5:34:42 PM
Zinc	0.016	0.010		mg/L	1	6/28/2012 8:50:41 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.84	0.0020		mg/L	1	6/28/2012 12:21:24 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 12:21:24 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 12:21:24 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 12:21:24 PM
Iron	8.7	0.20	*	mg/L	10	6/28/2012 3:38:14 PM
Lead	0.011	0.0050		mg/L	1	6/28/2012 12:21:24 PM
Manganese	2.7	0.010	*	mg/L	5	6/28/2012 12:26:22 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 12:21:24 PM
Zinc	0.019	0.010		mg/L	1	6/28/2012 12:21:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV

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

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 2:20:00 PM

Lab ID: 1206546-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.054	0.0020	*	mg/L	2	6/29/2012 4:48:37 PM
Selenium	0.0099	0.0020		mg/L	2	6/29/2012 4:48:37 PM
Uranium	0.0055	0.0020		mg/L	2	7/3/2012 11:16:18 AM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.066	0.0025	*	mg/L	2.5	6/27/2012 4:54:09 PM
Selenium	0.0093	0.0025		mg/L	2.5	6/27/2012 4:54:09 PM
Uranium	0.011	0.0025		mg/L	2.5	6/27/2012 4:54:09 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:25:41 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	5.3	1.0		µg/L	1	6/15/2012 7:43:36 AM
Toluene	1.4	1.0		µg/L	1	6/15/2012 7:43:36 AM
Ethylbenzene	2.5	1.0		µg/L	1	6/15/2012 7:43:36 AM
Methyl tert-butyl ether (MTBE)	40	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,4-Trimethylbenzene	4.9	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
1-Methylnaphthalene	6.3	4.0		µg/L	1	6/15/2012 7:43:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:43:36 AM
Acetone	11	10		µg/L	1	6/15/2012 7:43:36 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 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

- 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 1206546

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** GWM-1**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 2:20:00 PM**Lab ID:** 1206546-001**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
n-Propylbenzene	1.6	1.0		µg/L	1	6/15/2012 7:43:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Xylenes, Total	9.4	1.5		µg/L	1	6/15/2012 7:43:36 AM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	6/15/2012 7:43:36 AM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	1	6/15/2012 7:43:36 AM
Surr: Dibromofluoromethane	120	69.8-130		%REC	1	6/15/2012 7:43:36 AM
Surr: Toluene-d8	93.5	70-130		%REC	1	6/15/2012 7:43:36 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

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

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 1:45:00 PM

Lab ID: 1206546-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:03:35 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:03:35 PM
Surr: DNOP	138	61.3-164		%REC	1	6/14/2012 9:03:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/14/2012 1:22:21 PM
Surr: BFB	94.6	69.3-120		%REC	5	6/14/2012 1:22:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	6/14/2012 1:22:21 PM
Benzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Toluene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Ethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Xylenes, Total	ND	10		µg/L	5	6/14/2012 1:22:21 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Surr: 4-Bromofluorobenzene	90.1	55-140		%REC	5	6/14/2012 1:22:21 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	3.5	0.50		mg/L	5	6/14/2012 4:20:58 AM
Chloride	1200	50		mg/L	100	6/25/2012 3:53:38 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 4:20:58 AM
Bromide	4.0	0.50		mg/L	5	6/14/2012 4:20:58 AM
Nitrogen, Nitrate (As N)	24	0.50	*	mg/L	5	6/14/2012 4:20:58 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 4:20:58 AM
Sulfate	1400	50		mg/L	100	6/25/2012 3:53:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Calcium	420	10		mg/L	10	6/28/2012 12:33:36 PM
Magnesium	79	1.0		mg/L	1	6/28/2012 12:29:32 PM
Potassium	2.8	1.0		mg/L	1	6/28/2012 12:29:32 PM
Sodium	1400	20		mg/L	20	7/2/2012 8:05:21 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

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 1206546

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 2:45:00 PM

Lab ID: 1206546-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:29:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:29:00 PM
Surr: DNOP	133	61.3-164		%REC	1	6/14/2012 9:29:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/14/2012 1:53:14 PM
Surr: BFB	109	69.3-120		%REC	5	6/14/2012 1:53:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	6/14/2012 1:53:14 PM
Benzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Toluene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Ethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Xylenes, Total	ND	10		µg/L	5	6/14/2012 1:53:14 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	5	6/14/2012 1:53:14 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	4.4	0.50	*	mg/L	5	6/14/2012 5:05:53 AM
Chloride	1400	50		mg/L	100	6/25/2012 4:04:52 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 5:05:53 AM
Bromide	3.5	0.50		mg/L	5	6/14/2012 5:05:53 AM
Nitrogen, Nitrate (As N)	6.2	0.50		mg/L	5	6/14/2012 5:05:53 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 5:05:53 AM
Sulfate	1400	50		mg/L	100	6/25/2012 4:04:52 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Calcium	400	10		mg/L	10	6/28/2012 12:40:57 PM
Magnesium	78	10		mg/L	10	6/28/2012 12:40:57 PM
Potassium	ND	10		mg/L	10	6/28/2012 12:40:57 PM
Sodium	1300	20		mg/L	20	7/2/2012 8:13:06 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

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

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:26:00 AM

Lab ID: 1206546-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:11:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:11:50 AM
Acetone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 8:11:50 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

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

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:26:00 AM

Lab ID: 1206546-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 8:11:50 AM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	6/15/2012 8:11:50 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	6/15/2012 8:11:50 AM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 8:11:50 AM
Surr: Toluene-d8	95.5	70-130		%REC	1	6/15/2012 8:11:50 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

- 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

Analytical Report

Lab Order 1206546

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206546-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:40:05 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:40:05 AM
Acetone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 8:40:05 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

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 1206546

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206546-005

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 8:40:05 AM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	1	6/15/2012 8:40:05 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	6/15/2012 8:40:05 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/15/2012 8:40:05 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	6/15/2012 8:40:05 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

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

QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106272	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106273	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	92.8	85	115			
um	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Calcium	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R3742		RunNo: 3742					
Prep Date:			Analysis Date: 6/28/2012		SeqNo: 106276		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	R3875		RunNo:	3875				
Prep Date:		Analysis Date:	7/5/2012		SeqNo:	110339	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R3875		RunNo: 3875					
Prep Date:			Analysis Date: 7/5/2012		SeqNo: 110340		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID	1206572-002DMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3875		RunNo:	3875				
Prep Date:			Analysis Date:	7/5/2012		SeqNo:	110372		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Potassium	56	1.0	50.00	6.798	99.0	70	130				

Sample ID	1206572-002DMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3875		RunNo:	3875				
Prep Date:			Analysis Date:	7/5/2012		SeqNo:	110373		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110905	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110906	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID	1206982-003GMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110937	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID	1206982-003GMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110940	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	2411		RunNo:	3742				
Prep Date:	6/15/2012		Analysis Date:	6/28/2012		SeqNo:	105873		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020									
Cadmium	ND	0.0020									
Calcium	ND	1.0									
Chromium	ND	0.0060									
Copper	ND	0.0060									
Iron	ND	0.020									
Lead	ND	0.0050									
Magnesium	ND	1.0									
Manganese	ND	0.0020									
Potassium	ND	1.0									
Silver	ND	0.0050									
Sodium	ND	1.0									
Zinc	ND	0.010									

Sample ID	LCS-2411		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 2411		RunNo: 3742					
Prep Date:	6/15/2012		Analysis Date: 6/28/2012		SeqNo: 105874		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Calcium	45	1.0	50.00	0	90.2	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Magnesium	46	1.0	50.00	0	92.8	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Potassium	45	1.0	50.00	0	89.9	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Sodium	46	1.0	50.00	0	92.2	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

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#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3814		RunNo:	3814				
Prep Date:			Analysis Date:	6/29/2012		SeqNo:	107939		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130				
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130				

Sample ID	1206698-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107949	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107968	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107969	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107971	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107972	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411	SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW	Batch ID:	2411		RunNo:	3745				
Prep Date:	6/15/2012	Analysis Date:	6/27/2012		SeqNo:	105997	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- | | | | |
|---|--|----|--|
| E | 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 |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2463	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99864	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2463	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99865	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID	1206661-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99867	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID	1206661-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R3429	RunNo: 3429								
Prep Date:	Analysis Date: 6/13/2012	SeqNo: 95995	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R3429	RunNo: 3429								
Prep Date:	Analysis Date: 6/13/2012	SeqNo: 95996	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.3	90	110			
	9.7	0.50	10.00	0	97.4	90	110			

Sample ID 1206484-001AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3429	RunNo: 3429								
Prep Date:	Analysis Date: 6/13/2012	SeqNo: 96000	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115			

Sample ID 1206484-001AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3429	RunNo: 3429								
Prep Date:	Analysis Date: 6/13/2012	SeqNo: 96001	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206538-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	96008	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID	1206538-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3429	RunNo:	3429					
Prep Date:		Analysis Date:	6/13/2012	SeqNo:	96009	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3674	RunNo:	3674					
Prep Date:		Analysis Date:	6/25/2012	SeqNo:	103580	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS-b	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R3674	RunNo:	3674					
Prep Date:		Analysis Date:	6/25/2012	SeqNo:	103586	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			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2395	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96352	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	1.3		1.000		127	61.3	164			

Sample ID	LCS-2395	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96353	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID	LCSD-2395	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96354	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
Value above quantitation range	H	Holding times for preparation or analysis exceeded
Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID	1206537-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID	1206537-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96560	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID	B1	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	99408	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96713	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.3	50.5	158			
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID: 1206552-001AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BatchQC	Batch ID: R3447	RunNo: 3447								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96714 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	95.9	58	139			
Benzene	21	1.0	20.00	0	107	70.1	118			
Toluene	22	1.0	20.00	0	109	72.3	117			
Ethylbenzene	21	1.0	20.00	0	106	73.5	117			
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	65.8	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	71.1	118			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140			

Sample ID	1206552-001AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles							
Client ID:	BatchQC	Batch ID: R3447	RunNo: 3447							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96715		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	91.2	58	139	4.96	15.2	
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4	
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9	
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5	
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7	
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0	

Sample ID	b 1	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW	Batch ID:	R3447		RunNo:	3447				
Prep Date:		Analysis Date:	6/14/2012		SeqNo:	96749	Units:	µg/L		
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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	b 1	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96749	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R3458		RunNo: 3458						
Prep Date:		Analysis Date: 6/14/2012		SeqNo: 96906		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-Pentanone	ND	10								
2-Pentanone 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								

Comments:

- | | |
|--|--|
| 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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96906	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	1.0								
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	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96910	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96910	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID	1206442-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96911	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID	1206442-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96912	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID	b4	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R3458		RunNo:	3458				
Prep Date:		Analysis Date:	6/14/2012		SeqNo:	96944	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								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96944	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID b4	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96944	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
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								
Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID 100ng lcs2	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R3458	RunNo: 3458								
Prep Date:	Analysis Date: 6/14/2012	SeqNo: 96945	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

- | | |
|--|--|
| Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| Value above quantitation range | H Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206546

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206544-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	96946	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID	1206544-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3458	RunNo:	3458					
Prep Date:		Analysis Date:	6/15/2012	SeqNo:	96947	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9	
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5	
Chlorobenzene	170	10	200.0	0	86.7	70	130	6.59	17.7	
1,1-Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5	
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9	
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0	
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0	

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
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: 1206546

Received by/date:

Am 06/13/12

Logged By: Ashley Gallegos

6/13/2012 1:35:00 PM

Ag

Completed By: Ashley Gallegos

6/13/2012 3:13:33 PM

Ag

Reviewed By:

mg 06/13/12

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 ✓ 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°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*
Added 1mL HNO₃ to -002P for acceptable pH.
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: *7*
14. Are matrices correctly identified on Chain of Custody? Yes ✓ No
15. Is it clear what analyses were requested? Yes ✓ No Adjusted? *YES*
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ✓ No Checked by: *mg*

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	1.1	Good	Not Present			



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

July 12, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206552

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/13/2012 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:36:00 AM

Lab ID: 1206552-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:54:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:54:52 PM
Surr: DNOP	129	61.3-164		%REC	1	6/14/2012 9:54:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 2:23:57 PM
Surr: BFB	80.6	69.3-120		%REC	1	6/14/2012 2:23:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/14/2012 2:23:57 PM
Benzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Ethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 2:23:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Surr: 4-Bromofluorobenzene	76.2	55-140		%REC	1	6/14/2012 2:23:57 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.88	0.50		mg/L	5	6/14/2012 12:36:22 AM
Chloride	120	10		mg/L	20	6/14/2012 12:47:35 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 12:36:22 AM
Bromide	1.7	0.50		mg/L	5	6/14/2012 12:36:22 AM
Nitrogen, Nitrate (As N)	2.9	0.50		mg/L	5	6/14/2012 12:36:22 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 12:36:22 AM
Sulfate	68	2.5		mg/L	5	6/14/2012 12:36:22 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.10	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Calcium	70	1.0		mg/L	1	6/28/2012 8:57:52 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 8:57:52 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 8:57:52 PM
Iron	0.025	0.020		mg/L	1	6/28/2012 8:57:52 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 8:57:52 PM
Magnesium	13	1.0		mg/L	1	6/28/2012 8:57:52 PM
Manganese	0.0037	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 5:38:27 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:42:01 PM
Sodium	330	5.0		mg/L	5	7/5/2012 5:42:29 PM
Zinc	0.014	0.010		mg/L	1	6/28/2012 8:57:52 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.27	0.0020		mg/L	1	7/6/2012 2:42:08 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** NAPIS-1**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 11:36:00 AM**Lab ID:** 1206552-001**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Cadmium	ND	0.0020		mg/L	1	7/6/2012 2:42:08 PM
Chromium	0.0068	0.0060		mg/L	1	7/6/2012 2:42:08 PM
Copper	ND	0.060		mg/L	10	6/28/2012 3:41:59 PM
Iron	7.5	0.20	*	mg/L	10	7/6/2012 3:30:51 PM
Lead	ND	0.0050		mg/L	1	7/6/2012 2:42:08 PM
Manganese	0.36	0.0020	*	mg/L	1	7/6/2012 2:42:08 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:22:47 PM
Zinc	0.037	0.010		mg/L	1	7/6/2012 2:42:08 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0023	0.0010		mg/L	1	6/29/2012 4:50:29 PM
Selenium	0.0062	0.0010		mg/L	1	6/29/2012 4:50:29 PM
Uranium	0.014	0.0010		mg/L	1	7/3/2012 12:33:53 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0031	0.0025		mg/L	2.5	6/27/2012 4:56:01 PM
Selenium	0.0052	0.0025		mg/L	2.5	6/27/2012 4:56:01 PM
Uranium	0.032	0.0025	*	mg/L	2.5	6/27/2012 4:56:01 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:27:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Aniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 12:51:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Carbazole	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:36:00 AM

Lab ID: 1206552-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Chrysene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Fluorene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Isophorone	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 12:51:13 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
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 ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:36:00 AM

Lab ID: 1206552-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Phenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Pyridine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Surr: 2,4,6-Tribromophenol	98.9	44.2-126		%REC	1	6/18/2012 12:51:13 PM
Surr: 2-Fluorobiphenyl	92.6	37-114		%REC	1	6/18/2012 12:51:13 PM
Surr: 2-Fluorophenol	64.3	23.4-98		%REC	1	6/18/2012 12:51:13 PM
Surr: 4-Terphenyl-d14	89.9	41.3-116		%REC	1	6/18/2012 12:51:13 PM
Surr: Nitrobenzene-d5	87.2	39.5-118		%REC	1	6/18/2012 12:51:13 PM
Surr: Phenol-d5	52.3	20.9-95.9		%REC	1	6/18/2012 12:51:13 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:52:00 AM

Lab ID: 1206552-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 10:20:31 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 10:20:31 PM
Surr: DNOP	130	61.3-164		%REC	1	6/14/2012 10:20:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	1.3	0.50		mg/L	10	6/14/2012 2:54:40 PM
Surr: BFB	92.4	69.3-120		%REC	10	6/14/2012 2:54:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	340	25		µg/L	10	6/14/2012 2:54:40 PM
Benzene	18	10		µg/L	10	6/14/2012 2:54:40 PM
Toluene	ND	10		µg/L	10	6/14/2012 2:54:40 PM
Ethylbenzene	12	10		µg/L	10	6/14/2012 2:54:40 PM
Xylenes, Total	ND	20		µg/L	10	6/14/2012 2:54:40 PM
1,2,4-Trimethylbenzene	15	10		µg/L	10	6/14/2012 2:54:40 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/14/2012 2:54:40 PM
Surr: 4-Bromofluorobenzene	85.3	55-140		%REC	10	6/14/2012 2:54:40 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	1.7	0.50		mg/L	5	6/14/2012 12:58:49 AM
Chloride	350	10		mg/L	20	6/14/2012 1:10:03 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 12:58:49 AM
Bromide	1.5	0.50		mg/L	5	6/14/2012 12:58:49 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/14/2012 12:58:49 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 12:58:49 AM
Sulfate	7.9	2.5		mg/L	5	6/14/2012 12:58:49 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	1.8	0.010		mg/L	5	6/28/2012 9:10:39 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:07:27 PM
Calcium	93	1.0		mg/L	1	6/28/2012 9:07:27 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:07:27 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:07:27 PM
Iron	2.7	0.10	*	mg/L	5	6/28/2012 9:10:39 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:07:27 PM
Magnesium	19	1.0		mg/L	1	6/28/2012 9:07:27 PM
Manganese	1.6	0.010	*	mg/L	5	6/28/2012 9:10:39 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 6:01:43 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:43:54 PM
Sodium	350	5.0		mg/L	5	7/5/2012 6:05:09 PM
Zinc	0.18	0.010		mg/L	1	6/28/2012 9:07:27 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	1.9	0.010		mg/L	5	7/6/2012 2:52:47 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:52:00 AM

Lab ID: 1206552-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Cadmium	ND	0.0020		mg/L	1	7/6/2012 2:49:18 PM
Chromium	ND	0.0060		mg/L	1	7/6/2012 2:49:18 PM
Copper	ND	0.060		mg/L	10	6/28/2012 3:45:41 PM
Iron	3.8	0.10	*	mg/L	5	7/6/2012 2:52:47 PM
Lead	ND	0.0050		mg/L	1	7/6/2012 2:49:18 PM
Manganese	1.9	0.010	*	mg/L	5	7/6/2012 2:52:47 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:24:39 PM
Zinc	ND	0.010		mg/L	1	7/6/2012 2:49:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0089	0.0010		mg/L	1	6/29/2012 4:59:39 PM
Selenium	0.0047	0.0010		mg/L	1	6/29/2012 4:59:39 PM
Uranium	ND	0.0010		mg/L	1	7/3/2012 12:37:37 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.010	0.0025	*	mg/L	2.5	6/27/2012 4:57:54 PM
Selenium	0.0035	0.0025		mg/L	2.5	6/27/2012 4:57:54 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 4:57:54 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:29:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Aniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 1:20:56 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Carbazole	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 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
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U Samples with CalcVal < MDL

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Analytical Report

Lab Order 1206552

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CLIENT: Western Refining Southwest, Gallup

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Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:52:00 AM

Lab ID: 1206552-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Chrysene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Fluorene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Isophorone	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:20:56 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 9:52:00 AM

Lab ID: 1206552-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Phenol	16	10		µg/L	1	6/18/2012 1:20:56 PM
Pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Pyridine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Surr: 2,4,6-Tribromophenol	72.6	44.2-126		%REC	1	6/18/2012 1:20:56 PM
Surr: 2-Fluorobiphenyl	68.5	37-114		%REC	1	6/18/2012 1:20:56 PM
Surr: 2-Fluorophenol	50.3	23.4-98		%REC	1	6/18/2012 1:20:56 PM
Surr: 4-Terphenyl-d14	67.6	41.3-116		%REC	1	6/18/2012 1:20:56 PM
Surr: Nitrobenzene-d5	66.3	39.5-118		%REC	1	6/18/2012 1:20:56 PM
Surr: Phenol-d5	40.1	20.9-95.9		%REC	1	6/18/2012 1:20:56 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:15:00 AM

Lab ID: 1206552-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 10:45:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 10:45:53 PM
Surr: DNOP	131	61.3-164		%REC	1	6/14/2012 10:45:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 3:25:14 PM
Surr: BFB	83.0	69.3-120		%REC	1	6/14/2012 3:25:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/14/2012 3:25:14 PM
Benzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Ethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 3:25:14 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Surr: 4-Bromofluorobenzene	79.3	55-140		%REC	1	6/14/2012 3:25:14 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.55	0.50		mg/L	5	6/14/2012 1:21:17 AM
Chloride	1000	50		mg/L	100	6/25/2012 2:46:16 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 1:21:17 AM
Bromide	5.3	0.50		mg/L	5	6/14/2012 1:21:17 AM
Nitrogen, Nitrate (As N)	19	0.50	*	mg/L	5	6/14/2012 1:21:17 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 1:21:17 AM
Sulfate	450	10		mg/L	20	6/14/2012 1:32:30 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.054	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Calcium	37	1.0		mg/L	1	6/28/2012 9:14:23 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:14:23 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:14:23 PM
Iron	0.024	0.020		mg/L	1	6/28/2012 9:14:23 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:14:23 PM
Magnesium	6.2	1.0		mg/L	1	6/28/2012 9:14:23 PM
Manganese	ND	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Potassium	3.7	1.0		mg/L	1	7/5/2012 6:08:57 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:36:07 PM
Sodium	870	10		mg/L	10	7/10/2012 10:58:44 AM
Zinc	0.015	0.010		mg/L	1	6/28/2012 9:14:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.11	0.0020		mg/L	1	6/28/2012 3:10:05 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:15:00 AM

Lab ID: 1206552-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Cadmium	ND	0.0020		mg/L	1	6/28/2012 3:10:05 PM
Chromium	0.0075	0.0060		mg/L	1	6/28/2012 3:10:05 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 3:10:05 PM
Iron	2.4	0.10	*	mg/L	5	6/28/2012 2:35:18 PM
Lead	0.0052	0.0050		mg/L	1	6/28/2012 3:10:05 PM
Manganese	0.082	0.0020	*	mg/L	1	6/28/2012 3:10:05 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 3:10:05 PM
Zinc	0.057	0.010		mg/L	1	6/28/2012 3:10:05 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0050	0.0020		mg/L	2	6/29/2012 5:01:32 PM
Selenium	0.019	0.0020		mg/L	2	6/29/2012 5:01:32 PM
Uranium	0.039	0.0020	*	mg/L	2	7/3/2012 12:46:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0051	0.0025		mg/L	2.5	6/27/2012 4:59:46 PM
Selenium	0.017	0.0025		mg/L	2.5	6/27/2012 4:59:46 PM
Uranium	0.041	0.0025	*	mg/L	2.5	6/27/2012 4:59:46 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:31:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Aniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 1:50:47 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Carbazole	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:15:00 AM

Lab ID: 1206552-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Chrysene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Fluorene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Isophorone	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:50:47 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 11:15:00 AM

Lab ID: 1206552-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Phenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Pyridine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Surr: 2,4,6-Tribromophenol	99.5	44.2-126		%REC	1	6/18/2012 1:50:47 PM
Surr: 2-Fluorobiphenyl	93.6	37-114		%REC	1	6/18/2012 1:50:47 PM
Surr: 2-Fluorophenol	67.4	23.4-98		%REC	1	6/18/2012 1:50:47 PM
Surr: 4-Terphenyl-d14	93.6	41.3-116		%REC	1	6/18/2012 1:50:47 PM
Surr: Nitrobenzene-d5	96.3	39.5-118		%REC	1	6/18/2012 1:50:47 PM
Surr: Phenol-d5	54.7	20.9-95.9		%REC	1	6/18/2012 1:50:47 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 10:45:00 AM

Lab ID: 1206552-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 11:11:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 11:11:32 PM
Surr: DNOP	129	61.3-164		%REC	1	6/14/2012 11:11:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	0.14	0.050		mg/L	1	6/14/2012 3:55:57 PM
Surr: BFB	103	69.3-120		%REC	1	6/14/2012 3:55:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	28	2.5		µg/L	1	6/14/2012 3:55:57 PM
Benzene	13	1.0		µg/L	1	6/14/2012 3:55:57 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
Ethylbenzene	4.5	1.0		µg/L	1	6/14/2012 3:55:57 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 3:55:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
Surr: 4-Bromofluorobenzene	97.9	55-140		%REC	1	6/14/2012 3:55:57 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	1.3	0.50		mg/L	5	6/14/2012 1:43:43 AM
Chloride	710	25		mg/L	50	6/25/2012 2:57:30 PM
Nitrogen, Nitrite (As N)	2.1	0.50		mg/L	5	6/14/2012 1:43:43 AM
Bromide	3.9	0.50		mg/L	5	6/14/2012 1:43:43 AM
Nitrogen, Nitrate (As N)	11	0.50	*	mg/L	5	6/14/2012 1:43:43 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 1:43:43 AM
Sulfate	220	10		mg/L	20	6/14/2012 1:54:57 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.094	0.0020		mg/L	1	6/28/2012 9:22:22 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:22:22 PM
Calcium	68	1.0		mg/L	1	6/28/2012 9:22:22 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:22:22 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:22:22 PM
Iron	0.15	0.020		mg/L	1	6/28/2012 9:22:22 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:22:22 PM
Magnesium	12	1.0		mg/L	1	6/28/2012 9:22:22 PM
Manganese	0.38	0.0020	*	mg/L	1	6/28/2012 9:22:22 PM
Potassium	1.6	1.0		mg/L	1	7/5/2012 6:16:56 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:47:40 PM
Sodium	450	5.0		mg/L	5	7/5/2012 6:22:37 PM
Zinc	0.012	0.010		mg/L	1	6/28/2012 9:22:22 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.61	0.0020		mg/L	1	6/28/2012 2:39:04 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 10:45:00 AM

Lab ID: 1206552-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:39:04 PM
Chromium	0.022	0.0060		mg/L	1	6/28/2012 2:39:04 PM
Copper	0.0092	0.0060		mg/L	1	6/28/2012 2:39:04 PM
Iron	15	0.40	*	mg/L	20	7/2/2012 8:16:56 AM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:39:04 PM
Manganese	0.93	0.0020	*	mg/L	1	6/28/2012 2:39:04 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:39:04 PM
Zinc	0.055	0.010		mg/L	1	6/28/2012 2:39:04 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0038	0.0010		mg/L	1	6/29/2012 5:03:24 PM
Selenium	0.0072	0.0010		mg/L	1	6/29/2012 5:03:24 PM
Uranium	0.015	0.0010		mg/L	1	7/3/2012 12:48:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0057	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
Selenium	0.012	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
Uranium	0.027	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:32:47 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Aniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 2:20:33 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Carbazole	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 10:45:00 AM

Lab ID: 1206552-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Chrysene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Fluorene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Isophorone	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 2:20:33 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/12/2012 10:45:00 AM

Lab ID: 1206552-004

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Phenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Pyridine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Surr: 2,4,6-Tribromophenol	94.2	44.2-126		%REC	1	6/18/2012 2:20:33 PM
Surr: 2-Fluorobiphenyl	86.8	37-114		%REC	1	6/18/2012 2:20:33 PM
Surr: 2-Fluorophenol	57.3	23.4-98		%REC	1	6/18/2012 2:20:33 PM
Surr: 4-Terphenyl-d14	87.3	41.3-116		%REC	1	6/18/2012 2:20:33 PM
Surr: Nitrobenzene-d5	83.2	39.5-118		%REC	1	6/18/2012 2:20:33 PM
Surr: Phenol-d5	44.6	20.9-95.9		%REC	1	6/18/2012 2:20:33 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

Analytical Report

Lab Order 1206552

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/12/2012 9:26:00 AM**Lab ID:** 1206552-005**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 9:32:09 PM
Surr: BFB	92.6	69.3-120		%REC	1	6/14/2012 9:32:09 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Toluene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 4:36:16 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 4:36:16 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 4:36:16 PM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 4:36:16 PM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	6/15/2012 4:36:16 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	1	6/15/2012 4:36:16 PM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 4:36:16 PM
Surr: Toluene-d8	94.4	70-130		%REC	1	6/15/2012 4:36:16 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 1206552

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206552-006

Matrix: TRIP BLANK

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 10:02:34 PM
Surr: BFB	85.8	69.3-120		%REC	1	6/14/2012 10:02:34 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Toluene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 5:04:48 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:04:48 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:04:48 PM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 5:04:48 PM
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	6/15/2012 5:04:48 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/15/2012 5:04:48 PM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 5:04:48 PM
Surr: Toluene-d8	98.7	70-130		%REC	1	6/15/2012 5:04:48 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106272	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106273	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	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Calcium	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106276	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3875	RunNo:	3875					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110339	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3875	RunNo:	3875					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110340	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID	1206572-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3875	RunNo:	3875					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110372	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	56	1.0	50.00	6.798	99.0	70	130			

Sample ID	1206572-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3875	RunNo:	3875					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110373	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	20	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| 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 |
| R RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110905	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110906	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID	1206982-003GMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110937	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID	1206982-003GMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3896	RunNo:	3896					
Prep Date:		Analysis Date:	7/6/2012	SeqNo:	110940	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	2411		RunNo:	3742				
Prep Date:	6/15/2012		Analysis Date:	6/28/2012		SeqNo:	105873		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Copper	ND	0.0060									
Iron	ND	0.020									
Lead	ND	0.0050									
Manganese	ND	0.0020									
Silver	ND	0.0050									
Zinc	ND	0.010									

Sample ID	LCS-2411		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 2411		RunNo: 3742					
Prep Date:	6/15/2012		Analysis Date: 6/28/2012		SeqNo: 105874		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

V Value exceeds Maximum Contaminant Level.
A Value above quantitation range
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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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-1	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107939	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID	1206698-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107949	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107968	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107969	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107971	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107972	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
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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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-1	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
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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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2411	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2411	RunNo:	3745					
Prep Date:	6/15/2012	Analysis Date:	6/27/2012	SeqNo:	105997	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2463	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99864	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2463	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99865	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID	1206661-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99867	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID	1206661-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R3429		RunNo: 3429						
Prep Date:	Analysis Date: 6/13/2012		SeqNo: 95995		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								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW		Batch ID:	R3429		RunNo:	3429				
Prep Date:			Analysis Date:	6/13/2012		SeqNo:	95996		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID	1206484-001AMS			SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:		R3429		RunNo:	3429			
Prep Date:				Analysis Date:	6/13/2012		SeqNo:	96000		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115			

Sample ID	1206484-001AMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC			Batch ID:	R3429		RunNo:	3429			
Prep Date:				Analysis Date:	6/13/2012		SeqNo:	96001		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206484-001AMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC			Batch ID:	R3429		RunNo:	3429			
Prep Date:				Analysis Date:	6/13/2012		SeqNo:	96001		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20		
Phosphorus, Orthophosphate (As P)	5.4	0.50	5.000	0	108	74.5	115	0.163	20		

Sample ID	1206538-001AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R3429		RunNo: 3429					
Prep Date:			Analysis Date: 6/13/2012		SeqNo: 96008		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID	1206538-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions						
Client ID:	BatchQC		Batch ID: R3429		RunNo: 3429						
Prep Date:			Analysis Date: 6/13/2012		SeqNo: 96009		Units: mg/L				
lyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S	
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S	
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S	
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S	
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20		

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3674	RunNo:	3674					
Prep Date:		Analysis Date:	6/25/2012	SeqNo:	103580	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS-b		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R3674		RunNo: 3674					
Prep Date:			Analysis Date: 6/25/2012		SeqNo: 103586		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			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2395		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	PBW		Batch ID:	2395		RunNo:	3445			
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96352		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	1.3		1.000		127	61.3	164			

Sample ID	LCS-2395		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	LCSW		Batch ID:	2395		RunNo:	3445			
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96353		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID	LCSD-2395		SampType:	LCSD		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	LCSS02		Batch ID:	2395		RunNo:	3445			
Prep Date:	6/14/2012		Analysis Date:	6/14/2012		SeqNo:	96354		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID	1206537-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID	1206537-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96560	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID	B1	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	99408	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Qualifiers:

V Value exceeds Maximum Contaminant Level.

V 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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96713	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.3	50.5	158			
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID	1206552-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	NAPIS-1	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96714	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	95.9	58	139			
Benzene	21	1.0	20.00	0	107	70.1	118			
Toluene	22	1.0	20.00	0	109	72.3	117			
Ethylbenzene	21	1.0	20.00	0	106	73.5	117			
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	65.8	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	71.1	118			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140			

Sample ID	1206552-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	NAPIS-1		Batch ID:	R3447		RunNo:	3447				
Prep Date:			Analysis Date:	6/14/2012		SeqNo:	96715		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	91.2	58	139	4.96	15.2		
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4		
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9		
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5		
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9		
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5		
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7		
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0		

Sample ID	b 1	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW	Batch ID:	R3447		RunNo:	3447				
Prep Date:		Analysis Date:	6/14/2012		SeqNo:	96749		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	b 1	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R3447			RunNo: 3447					
Prep Date:		Analysis Date: 6/14/2012			SeqNo: 96749		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID: b1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: R3465	RunNo: 3465								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 101181	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								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	69.8	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: R3465	RunNo: 3465								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 101182	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	84.1	126			
Toluene	18	1.0	20.00	0	90.6	80	120			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.5	70	130			
Surr: Dibromofluoromethane	12		10.00		121	69.8	130			
Surr: Toluene-d8	9.4		10.00		93.7	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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	Units:	µg/L			
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	35								
4-Bromophenyl phenyl ether	ND	10								
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:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- 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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2383	RunNo:	3511					
Prep Date:	6/14/2012	Analysis Date:	6/18/2012	SeqNo:	98779	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	20								
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	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

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#: 1206552

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	lcs-2383		SampType: LCS	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 2383	RunNo: 3511						
Prep Date:	6/14/2012		Analysis Date: 6/18/2012	SeqNo: 98781		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID	lcsd-2383		SampType: LCSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 2383	RunNo: 3511						
Prep Date:	6/14/2012		Analysis Date: 6/18/2012	SeqNo: 98783		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
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: 1206552

Received by/date: *jm* 06/13/12

Logged By: Ashley Gallegos

6/13/2012 1:35:00 PM

Completed By: Ashley Gallegos

6/13/2012 3:29:53 PM

Reviewed By: *WRS* 6/14/12

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 ✓ | 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 | # of preserved bottles checked for pH: 12 |
| 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: <i>mg</i> |

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	1.1	Good	Not Present			



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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR Groundwater Sampling

OrderNo.: 1206557

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2nd QTR Groundwater Sampling

Collection Date: 6/12/2012 12:20:00 PM

Lab ID: 1206557-001

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	27	1.0		mg/L	1	6/14/2012 11:36:55 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 11:36:55 PM
Surr: DNOP	133	61.3-164		%REC	1	6/14/2012 11:36:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	24	5.0		mg/L	100	6/14/2012 10:33:12 PM
Surr: BFB	100	69.3-120		%REC	100	6/14/2012 10:33:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	6/15/2012 1:35:45 PM
Benzene	1300	100		µg/L	100	6/14/2012 10:33:12 PM
Toluene	1100	100		µg/L	100	6/14/2012 10:33:12 PM
Ethylbenzene	460	100		µg/L	100	6/14/2012 10:33:12 PM
Xylenes, Total	6300	200		µg/L	100	6/14/2012 10:33:12 PM
1,2,4-Trimethylbenzene	940	100		µg/L	100	6/14/2012 10:33:12 PM
1,3,5-Trimethylbenzene	300	100		µg/L	100	6/14/2012 10:33:12 PM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	100	6/14/2012 10:33:12 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.59	0.0020		mg/L	1	6/28/2012 9:46:38 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:46:38 PM
Chromium	0.28	0.0060	*	mg/L	1	6/28/2012 9:46:38 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:46:38 PM
Iron	0.062	0.020		mg/L	1	6/28/2012 9:46:38 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:46:38 PM
Manganese	1.1	0.010	*	mg/L	5	6/28/2012 9:53:19 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:49:33 PM
Zinc	0.011	0.010		mg/L	1	6/28/2012 9:46:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.60	0.0020		mg/L	1	6/28/2012 2:45:50 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:45:50 PM
Chromium	0.31	0.0060	*	mg/L	1	6/28/2012 2:45:50 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 2:45:50 PM
Iron	0.17	0.020		mg/L	1	6/28/2012 2:45:50 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:45:50 PM
Manganese	1.2	0.010	*	mg/L	5	6/28/2012 2:49:52 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:45:50 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 2:45:50 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0051	0.0050		mg/L	5	6/29/2012 5:05:16 PM
Selenium	0.0092	0.0050		mg/L	5	6/29/2012 5:05:16 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 12:50:12 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

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** East LDU**Project:** 2nd QTR Groundwater Sampling**Collection Date:** 6/12/2012 12:20:00 PM**Lab ID:** 1206557-001**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0099	0.0050		mg/L	5	6/27/2012 5:07:17 PM
Selenium	0.0065	0.0050		mg/L	5	6/27/2012 5:07:17 PM
Uranium	ND	0.0050		mg/L	5	6/27/2012 5:07:17 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:34:34 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 1206557

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2nd QTR Groundwater Sampling

Collection Date: 6/12/2012 12:35:00 PM

Lab ID: 1206557-002

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	9.0	1.0		mg/L	1	6/15/2012 12:02:02 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2012 12:02:02 AM
Surr: DNOP	133	61.3-164		%REC	1	6/15/2012 12:02:02 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	27	5.0		mg/L	100	6/14/2012 11:03:51 PM
Surr: BFB	89.0	69.3-120		%REC	100	6/14/2012 11:03:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	6/15/2012 2:04:36 PM
Benzene	1400	100		µg/L	100	6/14/2012 11:03:51 PM
Toluene	3500	100		µg/L	100	6/14/2012 11:03:51 PM
Ethylbenzene	410	100		µg/L	100	6/14/2012 11:03:51 PM
Xylenes, Total	5700	200		µg/L	100	6/14/2012 11:03:51 PM
1,2,4-Trimethylbenzene	810	100		µg/L	100	6/14/2012 11:03:51 PM
1,3,5-Trimethylbenzene	260	100		µg/L	100	6/14/2012 11:03:51 PM
Surr: 4-Bromofluorobenzene	91.5	55-140		%REC	100	6/14/2012 11:03:51 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.35	0.0020		mg/L	1	6/28/2012 9:57:12 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:57:12 PM
Chromium	0.019	0.0060		mg/L	1	6/28/2012 9:57:12 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:57:12 PM
Iron	0.090	0.020		mg/L	1	6/28/2012 9:57:12 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:57:12 PM
Manganese	0.20	0.0020	*	mg/L	1	6/28/2012 9:57:12 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:51:23 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 9:57:12 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.36	0.0020		mg/L	1	6/28/2012 2:55:25 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:55:25 PM
Chromium	0.020	0.0060		mg/L	1	6/28/2012 2:55:25 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 2:55:25 PM
Iron	0.16	0.020		mg/L	1	6/28/2012 2:55:25 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:55:25 PM
Manganese	0.20	0.0020	*	mg/L	1	6/28/2012 2:55:25 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:55:25 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 2:55:25 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0050		mg/L	5	6/29/2012 5:07:08 PM
Selenium	0.0075	0.0050		mg/L	5	6/29/2012 5:07:08 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 12:59:02 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

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** West LDU**Project:** 2nd QTR Groundwater Sampling**Collection Date:** 6/12/2012 12:35:00 PM**Lab ID:** 1206557-002**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.0038	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
Selenium	0.0049	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:36:22 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 1206557

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 2nd QTR Groundwater Sampling

Collection Date: 6/12/2012 12:10:00 PM

Lab ID: 1206557-003

Matrix: AQUEOUS

Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	18	1.0		mg/L	1	6/15/2012 12:27:25 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2012 12:27:25 AM
Surr: DNOP	145	61.3-164		%REC	1	6/15/2012 12:27:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	36	10		mg/L	200	6/14/2012 11:34:33 PM
Surr: BFB	108	69.3-120		%REC	200	6/14/2012 11:34:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	6/15/2012 2:33:24 PM
Benzene	2100	200		µg/L	200	6/14/2012 11:34:33 PM
Toluene	6200	200		µg/L	200	6/14/2012 11:34:33 PM
Ethylbenzene	590	200		µg/L	200	6/14/2012 11:34:33 PM
Xylenes, Total	5100	400		µg/L	200	6/14/2012 11:34:33 PM
1,2,4-Trimethylbenzene	900	200		µg/L	200	6/14/2012 11:34:33 PM
1,3,5-Trimethylbenzene	280	200		µg/L	200	6/14/2012 11:34:33 PM
Surr: 4-Bromofluorobenzene	107	55-140		%REC	200	6/14/2012 11:34:33 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.35	0.0020		mg/L	1	6/28/2012 10:05:04 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:05:04 PM
Chromium	0.046	0.0060		mg/L	1	6/28/2012 10:05:04 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:05:04 PM
Iron	0.51	0.10	*	mg/L	5	6/28/2012 10:09:06 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:05:04 PM
Manganese	0.83	0.0020	*	mg/L	1	6/28/2012 10:05:04 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:54:56 PM
Zinc	0.016	0.010		mg/L	1	6/28/2012 10:05:04 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.56	0.0020		mg/L	1	6/28/2012 3:03:21 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 3:03:21 PM
Chromium	0.052	0.0060		mg/L	1	6/28/2012 3:03:21 PM
Copper	0.018	0.0060		mg/L	1	6/28/2012 3:03:21 PM
Iron	5.8	0.20	*	mg/L	10	7/2/2012 8:20:40 AM
Lead	0.0086	0.0050		mg/L	1	6/28/2012 3:03:21 PM
Manganese	0.84	0.0020	*	mg/L	1	6/28/2012 3:03:21 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 3:03:21 PM
Zinc	0.43	0.010		mg/L	1	6/28/2012 3:03:21 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0095	0.0050		mg/L	5	6/29/2012 5:10:54 PM
Selenium	0.012	0.0050		mg/L	5	6/29/2012 5:10:54 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 1:00:54 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

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Oil Sump LDU**Project:** 2nd QTR Groundwater Sampling**Collection Date:** 6/12/2012 12:10:00 PM**Lab ID:** 1206557-003**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	0.017	0.0050	*	mg/L	5	6/27/2012 5:11:01 PM
Selenium	0.0097	0.0050		mg/L	5	6/27/2012 5:11:01 PM
Uranium	ND	0.0050		mg/L	5	6/27/2012 5:11:01 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	0.0031	0.0010	*	mg/L	5	6/19/2012 5:38:09 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

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 2nd QTR Groundwater Sampling**Collection Date:** 6/12/2012 9:26:00 AM**Lab ID:** 1206557-004**Matrix:** AQUEOUS**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2012 1:20:24 PM
Benzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 12:35:41 AM
1,2,4-Trimethylbenzene	1.0	1.0		µg/L	1	6/15/2012 12:35:41 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Surr: 4-Bromofluorobenzene	84.8	55-140		%REC	1	6/15/2012 12:35:41 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

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

Analytical Report

Lab Order 1206557

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** TRIP BLANK**Project:** 2nd QTR Groundwater Sampling**Collection Date:****Lab ID:** 1206557-005**Matrix:** TRIP BLANK**Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2012 1:49:13 PM
Benzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 1:06:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Surr: 4-Bromofluorobenzene	72.3	55-140		%REC	1	6/15/2012 1:06:13 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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106272	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106273	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	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID	1206170-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106275	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID	1206170-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3742	RunNo:	3742					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	106276	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	1206170-002DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R3742		RunNo: 3742					
Prep Date:			Analysis Date: 6/28/2012		SeqNo: 106276		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	R3896		RunNo:	3896				
Prep Date:		Analysis Date:	7/6/2012		SeqNo:	110905		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals					
nt ID:	LCSW	Batch ID: R3896			RunNo: 3896					
Prep Date:		Analysis Date: 7/6/2012			SeqNo: 110906		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID	1206982-003GMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3896		RunNo:	3896				
Prep Date:			Analysis Date:	7/6/2012		SeqNo:	110937		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.10	0.0050	0.1000	0	99.9	70	130				

Sample ID	1206982-003GMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3896		RunNo:	3896				
Prep Date:			Analysis Date:	7/6/2012		SeqNo:	110940		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20		

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	MB-2411	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	2411	RunNo:	3742					
Prep Date:	6/15/2012	Analysis Date:	6/28/2012	SeqNo:	105873	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-2411	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	2411	RunNo:	3742					
Prep Date:	6/15/2012	Analysis Date:	6/28/2012	SeqNo:	105874	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	1206552-001EMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3814		RunNo:	3814				
Prep Date:			Analysis Date:	6/29/2012		SeqNo:	107939		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130				
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130				

Sample ID	1206698-001EMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC		Batch ID:	R3814		RunNo:	3814			
Prep Date:			Analysis Date:	6/29/2012		SeqNo:	107949		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107968		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107969		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107971		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107972		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- 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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	MB-2411	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2411	RunNo:	3745					
Prep Date:	6/15/2012	Analysis Date:	6/27/2012	SeqNo:	105997	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

' Value exceeds Maximum Contaminant Level.
L 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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	MB-2463	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99864	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2463	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99865	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID	1206661-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99867	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID	1206661-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2463	RunNo:	3543					
Prep Date:	6/19/2012	Analysis Date:	6/19/2012	SeqNo:	99868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	MB-2395	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96352	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	1.3		1.000		127	61.3	164			

Sample ID	LCS-2395	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96353	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID	LCSD-2395	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	2395	RunNo:	3445					
Prep Date:	6/14/2012	Analysis Date:	6/14/2012	SeqNo:	96354	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
Value above quantitation range	H	Holding times for preparation or analysis exceeded
Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID	1206537-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID	1206537-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96560	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID	B1	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	99408	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID: R3447			RunNo: 3447					
Prep Date:		Analysis Date: 6/14/2012			SeqNo: 96713		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID	1206552-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BatchQC		Batch ID:	R3447		RunNo:	3447				
Prep Date:			Analysis Date:	6/14/2012		SeqNo:	96714		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	21	1.0	20.00	0	107	70.1	118				
Toluene	22	1.0	20.00	0	109	72.3	117				
Ethylbenzene	21	1.0	20.00	0	106	73.5	117				
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119				
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	65.8	121				
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	71.1	118				
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140				

Sample ID	1206552-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R3447	RunNo:	3447					
Prep Date:		Analysis Date:	6/14/2012	SeqNo:	96715	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4	
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9	
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5	
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7	
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0	

Sample ID	b 1	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW	Batch ID:	R3447		RunNo:	3447				
Prep Date:		Analysis Date:	6/14/2012		SeqNo:	96749	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								

Qualifiers:

V Value exceeds Maximum Contaminant Level.
L 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#: 1206557

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID b 1	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBW	Batch ID: R3447		RunNo: 3447							
Prep Date:	Analysis Date: 6/14/2012		SeqNo: 96749		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

Sample ID 5ML-RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBW	Batch ID: R3471		RunNo: 3471							
Prep Date:	Analysis Date: 6/15/2012		SeqNo: 98191		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surr: 4-Bromofluorobenzene	19		20.00		92.5	55	140			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSW	Batch ID: R3471		RunNo: 3471							
Prep Date:	Analysis Date: 6/15/2012		SeqNo: 98195		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	98.5	50.5	158			
Surr: 4-Bromofluorobenzene	19		20.00		96.9	55	140			

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
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: 1206557

Received by/date: LM 06/13/12

Logged By: Ashley Gallegos 6/13/2012 1:35:00 PM

Completed By: Ashley Gallegos 6/13/2012 3:44:29 PM

Reviewed By: KMS 6/14/12

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 ✓ 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°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
Added 1mL HNO_3 to -001D and -003D for acceptable pH.
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: 6
(<2 or >12 unless noted)
14. Are matrices correctly identified on Chain of Custody? Yes ✓ No Adjusted? yes
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 Checked by: mg

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	1.1	Good	Not Present			



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

July 12, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206693

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/15/2012 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 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical ReportLab Order **1206693**Date Reported: **7/12/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-50**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/13/2012 11:30:00 AM**Lab ID:** 1206693-001**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/18/2012 12:49:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/18/2012 12:49:24 PM
Surr: DNOP	124	61.3-164		%REC	1	6/18/2012 12:49:24 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.54	0.10		mg/L	1	6/16/2012 4:57:23 AM
Chloride	27	10		mg/L	20	6/16/2012 5:08:36 AM
Bromide	0.27	0.10		mg/L	1	6/26/2012 1:15:09 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/26/2012 1:15:09 AM
Sulfate	140	10		mg/L	20	6/26/2012 1:26:23 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 8:58:31 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.041	0.0020		mg/L	1	6/28/2012 10:13:00 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:13:00 PM
Calcium	21	1.0		mg/L	1	6/28/2012 10:13:00 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 10:13:00 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:13:00 PM
Iron	ND	0.020		mg/L	1	6/28/2012 10:13:00 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:13:00 PM
Magnesium	3.6	1.0		mg/L	1	6/28/2012 10:13:00 PM
Manganese	0.081	0.0020	*	mg/L	1	6/28/2012 10:13:00 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 7:29:29 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:56:45 PM
Sodium	240	5.0		mg/L	5	7/5/2012 7:35:07 PM
Zinc	0.012	0.010		mg/L	1	6/28/2012 10:13:00 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.081	0.0020		mg/L	1	6/28/2012 4:17:10 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:17:10 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:17:10 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:17:10 PM
Iron	0.89	0.020	*	mg/L	1	6/28/2012 4:17:10 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:17:10 PM
Manganese	0.10	0.0020	*	mg/L	1	6/28/2012 4:17:10 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:17:10 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:17:10 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	0.0019	0.0010		mg/L	1	6/29/2012 5:12:46 PM
Selenium	ND	0.0010		mg/L	1	6/29/2012 5:12:46 PM
Uranium	0.0085	0.0010		mg/L	1	7/3/2012 1:04:41 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV

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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 11:30:00 AM

Lab ID: 1206693-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:22:55 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:04:59 PM
Uranium	0.0074	0.0025		mg/L	2.5	6/20/2012 5:22:55 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:44:41 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Aniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Carbazole	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Chrysene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 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

Analytical Report

Lab Order 1206693

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 11:30:00 AM

Lab ID: 1206693-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Fluorene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Isophorone	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Phenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pyridine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Surr: 2,4,6-Tribromophenol	87.8	44.2-126		%REC	1	6/18/2012 3:50:25 PM
Surr: 2-Fluorobiphenyl	82.4	37-114		%REC	1	6/18/2012 3:50:25 PM
Surr: 2-Fluorophenol	60.4	23.4-98		%REC	1	6/18/2012 3:50:25 PM
Surr: 4-Terphenyl-d14	72.5	41.3-116		%REC	1	6/18/2012 3:50:25 PM
Surr: Nitrobenzene-d5	85.1	39.5-118		%REC	1	6/18/2012 3:50:25 PM
Surr: Phenol-d5	47.8	20.9-95.9		%REC	1	6/18/2012 3:50:25 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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 11:30:00 AM

Lab ID: 1206693-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:24:09 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:24:09 AM
Acetone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 3:24:09 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

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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** OW-50**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/13/2012 11:30:00 AM**Lab ID:** 1206693-001**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 3:24:09 AM
Surr: 1,2-Dichloroethane-d4	81.1	70-130		%REC	1	6/20/2012 3:24:09 AM
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	1	6/20/2012 3:24:09 AM
Surr: Dibromofluoromethane	77.6	69.8-130		%REC	1	6/20/2012 3:24:09 AM
Surr: Toluene-d8	89.6	70-130		%REC	1	6/20/2012 3:24:09 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 3:24:09 AM
Surr: BFB	93.6	70-130		%REC	1	6/20/2012 3:24:09 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DBD
Conductivity	1000	0.010		µmhos/cm	1	6/18/2012 12:19:03 PM
SM4500-H+B: PH						Analyst: DBD
pH	8.28	1.68	H	pH units	1	6/18/2012 12:19:03 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
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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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:50:00 AM

Lab ID: 1206693-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/20/2012 9:56:06 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/20/2012 9:56:06 AM
Surr: DNOP	121	61.3-164		%REC	1	6/20/2012 9:56:06 AM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.58	0.10		mg/L	1	6/16/2012 5:53:31 AM
Chloride	27	10		mg/L	20	6/16/2012 5:19:49 AM
Bromide	0.19	0.10		mg/L	1	6/26/2012 1:37:36 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/26/2012 1:37:36 AM
Sulfate	140	10		mg/L	20	6/26/2012 1:48:51 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 9:10:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.026	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Calcium	4.2	1.0		mg/L	1	6/28/2012 10:22:23 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 10:22:23 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:22:23 PM
Iron	0.076	0.020		mg/L	1	6/28/2012 10:22:23 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:22:23 PM
Magnesium	ND	1.0		mg/L	1	6/28/2012 10:22:23 PM
Manganese	0.023	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Potassium	1.4	1.0		mg/L	1	7/10/2012 11:59:58 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:04:27 PM
Sodium	230	5.0		mg/L	5	7/10/2012 12:03:56 PM
Zinc	0.023	0.010		mg/L	1	6/28/2012 10:22:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.028	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:24:53 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:24:53 PM
Iron	0.17	0.020		mg/L	1	6/28/2012 4:24:53 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:24:53 PM
Manganese	0.027	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:24:53 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:24:53 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0010		mg/L	1	6/29/2012 5:14:38 PM
Selenium	ND	0.0010		mg/L	1	6/29/2012 5:14:38 PM
Uranium	0.011	0.0010		mg/L	1	7/3/2012 1:16:39 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV

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

Analytical Report

Lab Order 1206693

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:50:00 AM

Lab ID: 1206693-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:26:51 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:06:51 PM
Uranium	0.010	0.0025		mg/L	2.5	6/20/2012 5:26:51 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:46:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Aniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Carbazole	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Chrysene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:50:00 AM

Lab ID: 1206693-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Fluorene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Isophorone	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Phenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pyridine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Surr: 2,4,6-Tribromophenol	94.5	44.2-126		%REC	1	6/18/2012 4:20:58 PM
Surr: 2-Fluorobiphenyl	91.7	37-114		%REC	1	6/18/2012 4:20:58 PM
Surr: 2-Fluorophenol	68.4	23.4-98		%REC	1	6/18/2012 4:20:58 PM
Surr: 4-Terphenyl-d14	73.8	41.3-116		%REC	1	6/18/2012 4:20:58 PM
Surr: Nitrobenzene-d5	99.4	39.5-118		%REC	1	6/18/2012 4:20:58 PM
Surr: Phenol-d5	56.5	20.9-95.9		%REC	1	6/18/2012 4:20:58 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

Analytical Report

Lab Order 1206693

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:50:00 AM

Lab ID: 1206693-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:51:41 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:51:41 AM
Acetone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 3:51:41 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

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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** OW-52**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/13/2012 10:50:00 AM**Lab ID:** 1206693-002**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 3:51:41 AM
Surr: 1,2-Dichloroethane-d4	79.8	70-130		%REC	1	6/20/2012 3:51:41 AM
Surr: 4-Bromofluorobenzene	91.6	70-130		%REC	1	6/20/2012 3:51:41 AM
Surr: Dibromofluoromethane	71.9	69.8-130		%REC	1	6/20/2012 3:51:41 AM
Surr: Toluene-d8	88.7	70-130		%REC	1	6/20/2012 3:51:41 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 3:51:41 AM
Surr: BFB	91.6	70-130		%REC	1	6/20/2012 3:51:41 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DBD
Conductivity	960	0.010		µmhos/cm	1	6/18/2012 12:23:04 PM
SM4500-H+B: PH						Analyst: DBD
pH	8.36	1.68	H	pH units	1	6/18/2012 12:23:04 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

Analytical Report

Lab Order 1206693

Date Reported: 7/12/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 11:10:00 AM

Lab ID: 1206693-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:19:28 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:19:28 AM
Acetone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 4:19:28 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

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 1206693

Date Reported: 7/12/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 11:10:00 AM

Lab ID: 1206693-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 4:19:28 AM
Surr: 1,2-Dichloroethane-d4	78.0	70-130		%REC	1	6/20/2012 4:19:28 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	6/20/2012 4:19:28 AM
Surr: Dibromofluoromethane	67.9	69.8-130	S	%REC	1	6/20/2012 4:19:28 AM
Surr: Toluene-d8	87.4	70-130		%REC	1	6/20/2012 4:19:28 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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R3742	RunNo: 3742								
Prep Date:	Analysis Date: 6/28/2012	SeqNo: 106272	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R3742	RunNo: 3742								
Prep Date:	Analysis Date: 6/28/2012	SeqNo: 106273	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	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Calcium	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID 1206170-002DMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3742	RunNo: 3742								
Prep Date:	Analysis Date: 6/28/2012	SeqNo: 106275	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206170-002DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R3742		RunNo: 3742					
Prep Date:			Analysis Date: 6/28/2012		SeqNo: 106276		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3875	RunNo:	3875					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110339	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	LCSW	Batch ID: R3875		RunNo: 3875						
Prep Date:		Analysis Date: 7/5/2012		SeqNo: 110340		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID	1206572-002DMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3875		RunNo:	3875				
Prep Date:			Analysis Date:	7/5/2012		SeqNo:	110372		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Potassium	56	1.0	50.00	6.798	99.0	70	130				

Sample ID	1206572-002DMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R3875		RunNo:	3875				
Prep Date:			Analysis Date:	7/5/2012		SeqNo:	110373		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	20		

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110905	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110906	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID 1206982-003GMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110937	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID 1206982-003GMSD	SampType: MSD	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110940	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2437	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	2437	RunNo:	3558					
Prep Date:	6/18/2012	Analysis Date:	6/20/2012	SeqNo:	100447	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-2437	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	2437	RunNo:	3558					
Prep Date:	6/18/2012	Analysis Date:	6/20/2012	SeqNo:	100448	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Chromium	0.46	0.0060	0.5000	0	93.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.2	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Lead	0.48	0.0050	0.5000	0	95.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.0	85	115			
Zinc	0.46	0.010	0.5000	0	92.4	85	115			

Sample ID	MB-2437	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	2437	RunNo:	3510					
Prep Date:	6/18/2012	Analysis Date:	6/19/2012	SeqNo:	110534	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	LCS-2437	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	2437	RunNo:	3510					
Prep Date:	6/18/2012	Analysis Date:	6/19/2012	SeqNo:	110535	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	91.4	85	115			

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107939	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID	1206698-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3814	RunNo:	3814					
Prep Date:		Analysis Date:	6/29/2012	SeqNo:	107949	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R3814			RunNo: 3814					
Prep Date:		Analysis Date: 6/29/2012			SeqNo: 107968		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	LCSW	Batch ID: R3814		RunNo: 3814						
Prep Date:		Analysis Date: 6/29/2012		SeqNo: 107969		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R3814		RunNo: 3814						
Prep Date:		Analysis Date: 6/29/2012		SeqNo: 107971			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R3814		RunNo:	3814				
Prep Date:		Analysis Date:	6/29/2012		SeqNo:	107972	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	OW-50	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

Value exceeds Maximum Contaminant Level.

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2437		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	2437		RunNo:	3586			
Prep Date:	6/18/2012		Analysis Date:	6/20/2012		SeqNo:	101232		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2555	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103704	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2555	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103705	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	.00004132	99.0	80	120			

Sample ID	1206839-003BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103712	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	98.1	75	125			

Sample ID	1206839-003BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103713	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	97.7	75	125	0.417	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98017 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								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98018 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			

Sample ID 1206661-005AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98022 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.62	0.10	0.5000	0	125	76.6	110			S
Chloride	6.0	0.50	5.000	0.1042	118	87.8	111			S

Sample ID 1206661-005AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98023 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	76.6	110	15.1	20	
Chloride	5.0	0.50	5.000	0.1042	97.2	87.8	111	18.7	20	

Sample ID 1206674-004AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98060 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	0.5000	0.5421	96.7	76.6	110			
Chloride	13	0.50	5.000	7.528	106	87.8	111			

Sample ID 1206674-004AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98061 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.5421	104	76.6	110	3.45	20	
Chloride	13	0.50	5.000	7.528	103	87.8	111	1.21	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#: 1206693
12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98080	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								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98081	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.5	0.50	5.000	0	90.8	90	110			

Sample ID	1206676-002BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98083	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3680	95.2	76.6	110			
Chloride	16	0.50	5.000	11.75	94.3	87.8	111			

Sample ID	1206676-002BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98084	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.3680	107	76.6	110	6.94	20	
Chloride	17	0.50	5.000	11.75	108	87.8	111	4.12	20	

Sample ID	1206702-001BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98093	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.89	0.10	0.5000	0.3668	105	76.6	110			
Chloride	11	0.50	5.000	5.507	102	87.8	111			

Sample ID	1206702-001BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3489	RunNo:	3489					
Prep Date:		Analysis Date:	6/16/2012	SeqNo:	98094	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3668	102	76.6	110	2.07	20	
Chloride	10	0.50	5.000	5.507	99.1	87.8	111	1.58	20	

Qualifiers:

V Value exceeds Maximum Contaminant Level.
 W 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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/25/2012	SeqNo: 103580 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS-b	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/25/2012	SeqNo: 103586 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	97.5	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.6	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID 1206A41-001AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/25/2012	SeqNo: 103617 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.8	0.10	2.500	0.5814	90.0	83.3	107			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.7	74.5	115			

Sample ID 1206A41-001AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/25/2012	SeqNo: 103618 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	3.0	0.10	2.500	0.5814	95.9	83.3	107	5.10	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115	6.36	20	

Sample ID 1206A50-001CMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/26/2012	SeqNo: 103653 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	26	1.0	25.00	1.580	98.9	83.3	107			

Sample ID 1206A50-001CMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3674	RunNo: 3674								
Prep Date:	Analysis Date: 6/26/2012	SeqNo: 103654 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	24	1.0	25.00	1.580	91.1	83.3	107	7.66	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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105798	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID	1206B68-001DMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	105849	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	100	88.6	110			

Sample ID	1206B68-001DMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	105850	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	103	88.6	110	1.63	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB-2434	SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range							
Client ID: PBW	Batch ID: 2434		RunNo: 3492							
Prep Date: 6/18/2012	Analysis Date: 6/18/2012		SeqNo: 98200		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	1.2		1.000		125	61.3	164			

Sample ID LCS-2434	SampType: LCS		TestCode: EPA Method 8015B: Diesel Range							
Client ID: LCSW	Batch ID: 2434		RunNo: 3492							
Prep Date: 6/18/2012	Analysis Date: 6/18/2012		SeqNo: 98201		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157			
Surr: DNOP	0.52		0.5000		104	61.3	164			

Sample ID LCSD-2434	SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range							
Client ID: LCSS02	Batch ID: 2434		RunNo: 3492							
Prep Date: 6/18/2012	Analysis Date: 6/18/2012		SeqNo: 98202		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Sample ID MB-2471	SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range							
Client ID: PBW	Batch ID: 2471		RunNo: 3541							
Prep Date: 6/19/2012	Analysis Date: 6/20/2012		SeqNo: 99779		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	1.2		1.000		119	61.3	164			

Sample ID LCS-2471	SampType: LCS		TestCode: EPA Method 8015B: Diesel Range							
Client ID: LCSW	Batch ID: 2471		RunNo: 3541							
Prep Date: 6/19/2012	Analysis Date: 6/20/2012		SeqNo: 99896		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157			
Surr: DNOP	0.54		0.5000		108	61.3	164			

Sample ID LCSD-2471	SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range							
Client ID: LCSS02	Batch ID: 2471		RunNo: 3541							
Prep Date: 6/19/2012	Analysis Date: 6/20/2012		SeqNo: 100099		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157			
Surr: DNOP	0.54		0.5000		108	61.3	164			

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	LCSD-2471		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 2471		RunNo: 3541					
Prep Date:	6/19/2012		Analysis Date: 6/20/2012		SeqNo: 100099		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	74	157	1.02	23	
Surr: DNOP	0.56		0.5000		112	61.3	164	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
R RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99906	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:

*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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R3548		RunNo: 3548						
Prep Date:		Analysis Date: 6/19/2012		SeqNo: 99906		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	1.0								
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	8.1		10.00		81.1	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	7.0		10.00		70.1	69.8	130			
Surr: Toluene-d8	8.8		10.00		87.8	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R3548			RunNo: 3548					
Prep Date:		Analysis Date: 6/19/2012			SeqNo: 99909		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.9	84.1	126			
Toluene	18	1.0	20.00	0	88.7	80	120			
Chlorobenzene	18	1.0	20.00	0	89.5	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| 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 |
| R RPD outside accepted recovery limits | RL | Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99909	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	7.5		10.00		75.3	69.8	130			
Surr: Toluene-d8	8.5		10.00		84.8	70	130			

Sample ID	1206758-001ams	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99910	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	99	5.0	100.0	0	99.1	71.1	135			
Toluene	94	5.0	100.0	0	93.8	74	121			
Chlorobenzene	92	5.0	100.0	0	91.7	70	130			
1,1-Dichloroethene	91	5.0	100.0	0	91.4	76.3	127			
Trichloroethene (TCE)	87	5.0	100.0	0	87.0	70	130			
Surr: 1,2-Dichloroethane-d4	41		50.00		82.4	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.3	70	130			
Surr: Dibromofluoromethane	37		50.00		73.7	69.8	130			
Surr: Toluene-d8	43		50.00		86.9	70	130			

Sample ID	1206758-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99911	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	89	5.0	100.0	0	88.8	71.1	135	11.0	21.9	
Toluene	88	5.0	100.0	0	87.9	74	121	6.47	18.5	
Chlorobenzene	88	5.0	100.0	0	87.7	70	130	4.48	17.7	
1,1-Dichloroethene	83	5.0	100.0	0	83.3	76.3	127	9.23	16.5	
Trichloroethene (TCE)	81	5.0	100.0	0	81.0	70	130	7.13	18.9	
Surr: 1,2-Dichloroethane-d4	40		50.00		79.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	46		50.00		92.1	70	130	0	0	
Surr: Dibromofluoromethane	34		50.00		67.2	69.8	130	0	0	S
Surr: Toluene-d8	42		50.00		83.8	70	130	0	0	

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	mb-2383		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 2383		RunNo: 3511					
Prep Date:	6/14/2012		Analysis Date: 6/18/2012		SeqNo: 98779		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Sample ID	lcs-2383		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 2383		RunNo: 3511					
Prep Date:	6/14/2012		Analysis Date: 6/18/2012		SeqNo: 98781		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID	lcs-2433		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 2433		RunNo: 3511					
Prep Date:	6/18/2012		Analysis Date: 6/18/2012		SeqNo: 98782		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.0	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	82.2	35.5	108			
2-Chlorophenol	140	10	200.0	0	70.6	29.8	106			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	86.8	44.7	112			
N-Nitrosodi-n-propylamine	81	10	100.0	0	80.6	38.5	105			
4-Nitrophenol	85	10	200.0	0	42.3	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	65.2	20.2	93			
Phenol	96	10	200.0	0	48.1	23	66.1			
Pyrene	85	10	100.0	0	84.6	40.1	101			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.1	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		86.5	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		76.0	37	114			
Surr: 2-Fluorophenol	110		200.0		55.1	23.4	98			
Surr: 4-Terphenyl-d14	93		100.0		92.6	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		77.5	39.5	118			
Surr: Phenol-d5	100		200.0		51.9	20.9	95.9			

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
R RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	lcscd-2383		SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02		Batch ID:	2383		RunNo:	3511			
Prep Date:	6/14/2012		Analysis Date:	6/18/2012		SeqNo:	98783		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Sample ID	lcscd-2433		SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02		Batch ID:	2433		RunNo:	3511			
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98784		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	38.2	99.4	5.88	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.2	35.5	108	2.54	20	
2-Chlorophenol	130	10	200.0	0	67.2	29.8	106	4.95	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.9	32.6	91.5	4.22	20	
2,4-Dinitrotoluene	96	10	100.0	0	96.4	44.7	112	10.4	20	
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.7	38.5	105	1.20	20	
4-Nitrophenol	97	10	200.0	0	48.5	11.6	73.1	13.7	20	
Pentachlorophenol	140	20	200.0	0	72.3	20.2	93	10.3	20	
Phenol	86	10	200.0	0	42.9	23	66.1	11.4	20	
Pyrene	93	10	100.0	0	93.3	40.1	101	9.79	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	6.51	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.6	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		53.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	91		100.0		90.6	41.3	116	0	0	
Surr: Nitrobenzene-d5	83		100.0		82.8	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.4	20.9	95.9	0	0	

Sample ID	MB-2433		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBW		Batch ID:	2433		RunNo:	3511			
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	99052		Units: µg/L	
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								

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2433	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2433	RunNo:	3511					
Prep Date:	6/18/2012	Analysis Date:	6/18/2012	SeqNo:	99052	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
ene	ND	10								
...-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								
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								

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
R RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2433	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	2433	RunNo:	3511					
Prep Date:	6/18/2012	Analysis Date:	6/18/2012	SeqNo:	99052	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	20								
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	170		200.0		82.8	44.2	126			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.7	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		78.3	39.5	118			
Surr: Phenol-d5	99		200.0		49.6	20.9	95.9			

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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206670-001C dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98404	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3200	0.010						3.54	20	

Sample ID	1206736-005C dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98418	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	4500	0.010						0.355	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
R RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99939	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.3		10.00		93.4	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99940	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	85	115			
Surr: BFB	9.3		10.00		92.6	70	130			

Sample ID	1206758-001amsdg	SampType:	MSD	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99942	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	45		50.00		89.8	70	130	0	0	

Sample ID	1206758-001amsg	SampType:	MS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99943	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	46		50.00		92.3	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#: 1206693

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206670-001C dup			SampType:	DUP		TestCode:	SM4500-H+B: pH		
Client ID:	BatchQC		Batch ID:	R3500		RunNo:	3500			
Prep Date:			Analysis Date:	6/18/2012		SeqNo:	98377		Units:	pH units
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.13	1.68								H

Sample ID	1206736-005C dup			SampType:	DUP		TestCode:	SM4500-H+B: pH			
Client ID:	BatchQC			Batch ID:	R3500		RunNo:	3500			
Prep Date:				Analysis Date:	6/18/2012		SeqNo:	98394		Units:	pH units
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
pH	8.49	1.68								H	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| 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 |
| R RPD outside accepted recovery limits | RL | Reporting Detection Limit |

Sample Log-In Check List

Client Name: Western Refining Gallup		Work Order Number: 1206693
Received by/date: <u>AG 06/15/12</u>		
Logged By: Anne Thorne	6/15/2012 9:31:00 AM	<i>Anne Thorne</i>
Completed By: Anne Thorne	6/15/2012	<i>Anne Thorne</i>
Reviewed By: <u>mg</u> <u>06/15/12</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: 6
(2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

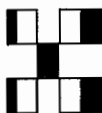
17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

18. Additional remarks:

19. Cooler Information

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



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Client: Western Refining							☐ Standard ☐ Rush
Mailing Address:							Project Name
Rt 3 Box 7						2nd QTR 2012 Groundwater Sampling	
Gallup, NM 87301						Quarterly Sampling	
Phone #: 505-722-3833							
email or Fax#: 505-722-0210							
QA/QC Package:							
☐ Standard ☐ Level 4 (Full Validation)							
Accreditation:							
☐ NELAP ☐ Other							
☐ EDD (Type) _____							
Sampler: A							
Project Manager: Cheryl Johnson							
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		
6/13/12	1130	W	OW-50	VARIABLES 1	VARIOUS L	-001	
6/13/12	1050	W	OW-52			-002	
6/13/12	1110	W	FIELD BLANK			-003	
Date: 6/15/12	Time: 0930	Relinquished by: Dan Slesner		Received by: [Signature]	Date: 6/15/12	Time: 0930	
Date:	Time:	Relinquished by:		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 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*

July 16, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling

OrderNo.: 1206698

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/15/2012 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 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 9:05:00 AM

Lab ID: 1206698-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JPM
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/18/2012 1:15:33 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/18/2012 1:15:33 PM
Surr: DNOP	121	61.3-164		%REC	1	6/18/2012 1:15:33 PM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.34	0.10		mg/L	1	6/16/2012 7:12:08 AM
Chloride	61	10		mg/L	20	6/16/2012 7:23:22 AM
Bromide	0.26	0.10		mg/L	1	6/27/2012 6:54:23 PM
Sulfate	180	10		mg/L	20	6/27/2012 7:06:48 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 7:56:27 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.036	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Cadmium	ND	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Calcium	2.1	1.0		mg/L	1	7/11/2012 9:44:29 AM
Chromium	ND	0.0060		mg/L	1	7/11/2012 9:44:29 AM
Copper	ND	0.0060		mg/L	1	7/11/2012 9:44:29 AM
Iron	ND	0.020		mg/L	1	7/11/2012 9:44:29 AM
Lead	ND	0.0050		mg/L	1	7/11/2012 9:44:29 AM
Magnesium	ND	1.0		mg/L	1	7/11/2012 7:20:01 PM
Manganese	0.0067	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Potassium	1.1	1.0		mg/L	1	7/11/2012 9:44:29 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:06:18 PM
Sodium	320	5.0		mg/L	5	7/11/2012 9:50:31 AM
Zinc	0.015	0.010		mg/L	1	7/11/2012 9:44:29 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.035	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:32:41 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:32:41 PM
Iron	0.074	0.020		mg/L	1	6/28/2012 4:32:41 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:32:41 PM
Manganese	0.012	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:32:41 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:32:41 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0010		mg/L	1	6/29/2012 5:16:30 PM
Selenium	0.0037	0.0010		mg/L	1	6/29/2012 5:16:30 PM
Uranium	0.043	0.0010	*	mg/L	1	7/3/2012 1:18:31 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:30:47 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 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 9:05:00 AM

Lab ID: 1206698-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Selenium	0.0042	0.0025		mg/L	2.5	6/21/2012 3:08:43 PM
Uranium	0.039	0.0025	*	mg/L	2.5	6/20/2012 5:30:47 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:48:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:47:13 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:47:13 AM
Acetone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 4:47:13 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

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 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 9:05:00 AM

Lab ID: 1206698-001

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 4:47:13 AM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%REC	1	6/20/2012 4:47:13 AM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	1	6/20/2012 4:47:13 AM
Surr: Dibromofluoromethane	71.9	69.8-130		%REC	1	6/20/2012 4:47:13 AM
Surr: Toluene-d8	88.5	70-130		%REC	1	6/20/2012 4:47:13 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 4:47:13 AM
Surr: BFB	94.5	70-130		%REC	1	6/20/2012 4:47:13 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DBD
Conductivity	1300	0.010		µmhos/cm	1	6/18/2012 12:27:05 PM
SM4500-H+B: PH						Analyst: DBD
pH	8.76	1.68	*H	pH units	1	6/18/2012 12:27:05 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 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:05:00 AM

Lab ID: 1206698-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/20/2012 10:21:29 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/20/2012 10:21:29 AM
Surr: DNOP	122	61.3-164		%REC	1	6/20/2012 10:21:29 AM
EPA METHOD 300.0: ANIONS						Analyst: BRM
Fluoride	0.31	0.10		mg/L	1	6/16/2012 8:08:17 AM
Chloride	980	50		mg/L	100	6/27/2012 7:44:02 PM
Bromide	ND	2.0		mg/L	20	6/27/2012 7:31:38 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	6/27/2012 7:31:38 PM
Sulfate	160	10		mg/L	20	6/27/2012 7:31:38 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 8:08:52 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.080	0.0020		mg/L	1	7/11/2012 9:54:17 AM
Cadmium	ND	0.0020		mg/L	1	7/11/2012 9:54:17 AM
Calcium	160	10		mg/L	10	7/11/2012 9:58:09 AM
Chromium	ND	0.0060		mg/L	1	7/11/2012 9:54:17 AM
Copper	ND	0.0060		mg/L	1	7/11/2012 9:54:17 AM
Iron	ND	0.020		mg/L	1	7/11/2012 9:54:17 AM
Lead	ND	0.0050		mg/L	1	7/11/2012 9:54:17 AM
Magnesium	21	1.0		mg/L	1	7/11/2012 7:35:05 PM
Manganese	0.053	0.0020	*	mg/L	1	7/11/2012 9:54:17 AM
Potassium	1.9	1.0		mg/L	1	7/11/2012 9:54:17 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:08:12 PM
Sodium	740	10		mg/L	10	7/11/2012 9:58:09 AM
Zinc	0.026	0.010		mg/L	1	7/11/2012 9:54:17 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.079	0.0020		mg/L	1	6/28/2012 4:42:32 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:42:32 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:42:32 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:42:32 PM
Iron	ND	0.020		mg/L	1	6/28/2012 4:42:32 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:42:32 PM
Manganese	0.054	0.0020	*	mg/L	1	6/28/2012 4:42:32 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:42:32 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:42:32 PM
EPA 200.8: DISSOLVED METALS						Analyst: SNV
Arsenic	ND	0.0020		mg/L	2	7/5/2012 6:06:53 PM
Selenium	0.014	0.0020		mg/L	2	7/5/2012 6:06:53 PM
Uranium	0.067	0.0020	*	mg/L	2	7/3/2012 1:20:23 PM
200.8 ICPMS METALS:TOTAL						Analyst: SNV

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

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:05:00 AM

Lab ID: 1206698-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: SNV
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:34:43 PM
Selenium	0.013	0.0025		mg/L	2.5	6/21/2012 3:10:35 PM
Uranium	0.062	0.0025	*	mg/L	2.5	6/20/2012 5:34:43 PM
EPA METHOD 245.1: MERCURY						Analyst: RAG
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:50:06 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Methyl tert-butyl ether (MTBE)	130	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:14:45 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:14:45 AM
Acetone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 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

- 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 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 10:05:00 AM

Lab ID: 1206698-002

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 5:14:45 AM
Surr: 1,2-Dichloroethane-d4	81.9	70-130		%REC	1	6/20/2012 5:14:45 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	6/20/2012 5:14:45 AM
Surr: Dibromofluoromethane	73.4	69.8-130		%REC	1	6/20/2012 5:14:45 AM
Surr: Toluene-d8	91.0	70-130		%REC	1	6/20/2012 5:14:45 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	0.14	0.050		mg/L	1	6/20/2012 5:14:45 AM
Surr: BFB	92.9	70-130		%REC	1	6/20/2012 5:14:45 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DBD
Conductivity	3700	0.010		µmhos/cm	1	6/18/2012 12:35:32 PM
SM4500-H+B: PH						Analyst: DBD

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

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** OW-10**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:** 6/13/2012 10:05:00 AM**Lab ID:** 1206698-002**Matrix:** AQUEOUS**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: DBD
pH	7.65	1.68	H	pH units	1	6/18/2012 12:35:32 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 1206698

Date Reported: 7/16/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 8:35:00 AM

Lab ID: 1206698-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:42:33 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:42:33 AM
Acetone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 5:42:33 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

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

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date: 6/13/2012 8:35:00 AM

Lab ID: 1206698-003

Matrix: AQUEOUS

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 5:42:33 AM
Surr: 1,2-Dichloroethane-d4	79.6	70-130		%REC	1	6/20/2012 5:42:33 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	6/20/2012 5:42:33 AM
Surr: Dibromofluoromethane	70.6	69.8-130		%REC	1	6/20/2012 5:42:33 AM
Surr: Toluene-d8	87.5	70-130		%REC	1	6/20/2012 5:42:33 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

- 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

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Trip Blank**Project:** 2nd QTR 2012 Groundwater Sampling**Collection Date:****Lab ID:** 1206698-004**Matrix:** TRIP BLANK**Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 6:10:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 6:10:25 AM
Acetone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 6:10:25 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

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

Analytical Report

Lab Order 1206698

Date Reported: 7/16/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2nd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1206698-004

Matrix: TRIP BLANK

Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 6:10:25 AM
Surr: 1,2-Dichloroethane-d4	80.9	70-130		%REC	1	6/20/2012 6:10:25 AM
Surr: 4-Bromofluorobenzene	96.5	70-130		%REC	1	6/20/2012 6:10:25 AM
Surr: Dibromofluoromethane	71.1	69.8-130		%REC	1	6/20/2012 6:10:25 AM
Surr: Toluene-d8	88.3	70-130		%REC	1	6/20/2012 6:10:25 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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110905 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110906 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID 1206982-003GMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110937 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID 1206982-003GMSD	SampType: MSD	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3896	RunNo: 3896								
Prep Date:	Analysis Date: 7/6/2012	SeqNo: 110940 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Sample ID 1206572-002DMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3958	RunNo: 3958								
Prep Date:	Analysis Date: 7/11/2012	SeqNo: 112979 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.49	0.0050	0.5000	0.002050	97.7	70	130			

Sample ID 1206572-002DMSD	SampType: MSD	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3958	RunNo: 3958								
Prep Date:	Analysis Date: 7/11/2012	SeqNo: 112980 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0.002050	96.5	70	130	1.25	20	

Sample ID 1206572-002DMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R3958	RunNo: 3958								
Prep Date:	Analysis Date: 7/11/2012	SeqNo: 112982 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			

Qualifiers:

- | | |
|--|--|
| Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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 |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206572-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112982	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID	1206572-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	112983	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113009	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3958	RunNo:	3958					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113010	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0.0007500	96.8	85	115			
Calcium	57	1.0	50.00	0	113	85	115			
Chromium	0.48	0.0060	0.5000	0	95.1	85	115			
Copper	0.47	0.0060	0.5000	0	93.2	85	115			
Iron	0.46	0.020	0.5000	0	91.8	85	115			
Lead	0.49	0.0050	0.5000	0.002080	97.2	85	115			
Manganese	0.46	0.0020	0.5000	0	92.8	85	115			
Potassium	55	1.0	50.00	0	111	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R3958		RunNo: 3958					
Prep Date:			Analysis Date: 7/11/2012		SeqNo: 113010		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	97.8	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW	Batch ID:	R3972		RunNo:	3972				
Prep Date:		Analysis Date:	7/11/2012		SeqNo:	113770	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3972	RunNo:	3972					
Prep Date:		Analysis Date:	7/11/2012	SeqNo:	113771	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	48	1.0	50.00	0	96.9	85	115			

Qualifiers:

Value exceeds Maximum Contaminant Level.
 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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2437		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	2437		RunNo:	3558			
Prep Date:	6/18/2012		Analysis Date:	6/20/2012		SeqNo:	100447		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-2437		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	2437		RunNo:	3558			
Prep Date:	6/18/2012		Analysis Date:	6/20/2012		SeqNo:	100448		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Chromium	0.46	0.0060	0.5000	0	93.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.2	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Lead	0.48	0.0050	0.5000	0	95.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.0	85	115			
Zinc	0.46	0.010	0.5000	0	92.4	85	115			

Sample ID	MB-2437		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	2437		RunNo:	3510			
Prep Date:	6/18/2012		Analysis Date:	6/19/2012		SeqNo:	110534		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	LCS-2437		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	2437		RunNo:	3510			
Prep Date:	6/18/2012		Analysis Date:	6/19/2012		SeqNo:	110535		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	91.4	85	115			

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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107939		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID	1206698-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-1		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107949		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID	LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	LCSW	Batch ID: R3814		RunNo: 3814						
Prep Date:		Analysis Date: 6/29/2012		SeqNo: 107968		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R3814		RunNo: 3814					
Prep Date:			Analysis Date: 6/29/2012		SeqNo: 107969		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R3814		RunNo:	3814				
Prep Date:		Analysis Date:	6/29/2012		SeqNo:	107971	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R3814		RunNo: 3814						
Prep Date:		Analysis Date: 6/29/2012		SeqNo: 107972		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206552-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109791	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	1206693-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109799	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109818	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3864	RunNo:	3864					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R3878	RunNo:	3878					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110532	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R3878	RunNo:	3878					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110533	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2437	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	2437	RunNo:	3586					
Prep Date:	6/18/2012	Analysis Date:	6/20/2012	SeqNo:	101232	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2555	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103704	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2555	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103705	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	.00004132	99.0	80	120			

Sample ID	1206839-003BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103712	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	98.1	75	125			

Sample ID	1206839-003BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	2555	RunNo:	3676					
Prep Date:	6/25/2012	Analysis Date:	6/26/2012	SeqNo:	103713	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	97.7	75	125	0.417	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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98017 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								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98018 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			

Sample ID 1206661-005AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98022 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.62	0.10	0.5000	0	125	76.6	110			S
Chloride	6.0	0.50	5.000	0.1042	118	87.8	111			S

Sample ID 1206661-005AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98023 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	76.6	110	15.1	20	
Chloride	5.0	0.50	5.000	0.1042	97.2	87.8	111	18.7	20	

Sample ID 1206674-004AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98060 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	0.5000	0.5421	96.7	76.6	110			
Chloride	13	0.50	5.000	7.528	106	87.8	111			

Sample ID 1206674-004AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/15/2012	SeqNo: 98061 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.5421	104	76.6	110	3.45	20	
Chloride	13	0.50	5.000	7.528	103	87.8	111	1.21	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98080 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								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98081 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.5	0.50	5.000	0	90.8	90	110			

Sample ID 1206676-002BMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98083 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3680	95.2	76.6	110			
Chloride	16	0.50	5.000	11.75	94.3	87.8	111			

Sample ID 1206676-002BMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98084 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.3680	107	76.6	110	6.94	20	
Chloride	17	0.50	5.000	11.75	108	87.8	111	4.12	20	

Sample ID 1206702-001BMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98093 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.89	0.10	0.5000	0.3668	105	76.6	110			
Chloride	11	0.50	5.000	5.507	102	87.8	111			

Sample ID 1206702-001BMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R3489	RunNo: 3489								
Prep Date:	Analysis Date: 6/16/2012	SeqNo: 98094 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3668	102	76.6	110	2.07	20	
Chloride	10	0.50	5.000	5.507	99.1	87.8	111	1.58	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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105798	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105799	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	94.9	90	110			
Bromide	2.4	0.10	2.500	0	97.4	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID	1206B22-001BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105801	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.5	0.10	2.500	0	99.0	83.3	107			

Sample ID	1206B22-001BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/27/2012	SeqNo:	105802	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.5	0.10	2.500	0	98.7	83.3	107	0.263	20	

Sample ID	1206B68-001DMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R3741	RunNo:	3741					
Prep Date:		Analysis Date:	6/28/2012	SeqNo:	105849	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	0.50	5.000	9.623	106	87.8	111			
Bromide	2.4	0.10	2.500	0	97.1	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.2	74.5	115			
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	100	88.6	110			

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206B68-001DMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID:	R3741		RunNo:	3741				
Prep Date:			Analysis Date:	6/28/2012		SeqNo:	105850		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	15	0.50	5.000	9.623	106	87.8	111	0.196	20		
Bromide	2.5	0.10	2.500	0	99.6	83.3	107	2.53	20		
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.8	74.5	115	2.66	20		
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	103	88.6	110	1.63	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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	MB-2434		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	PBW		Batch ID:	2434		RunNo:	3492				
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98200		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	1.2		1.000		125	61.3	164				

Sample ID	LCS-2434		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSW		Batch ID:	2434		RunNo:	3492				
Prep Date:	6/18/2012		Analysis Date:	6/18/2012		SeqNo:	98201		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157				
Surr: DNOP	0.52		0.5000		104	61.3	164				

Sample ID	LCSD-2434	SampType: LCSD			TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID: 2434			RunNo: 3492					
Prep Date:	6/18/2012	Analysis Date: 6/18/2012			SeqNo: 98202		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Sample ID	MB-2471	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	2471	RunNo:	3541					
Prep Date:	6/19/2012	Analysis Date:	6/20/2012	SeqNo:	99779	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	1.2		1.000		119	61.3	164			

Sample ID	LCS-2471		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 2471		RunNo: 3541					
Prep Date:	6/19/2012		Analysis Date: 6/20/2012		SeqNo: 99896		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157			
Surr: DNOP	0.54		0.5000		108	61.3	164			

Sample ID	LCSD-2471		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 2471		RunNo: 3541					
Prep Date:	6/19/2012		Analysis Date: 6/20/2012		SeqNo: 100099		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	LCSD-2471	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	2471	RunNo:	3541					
Prep Date:	6/19/2012	Analysis Date:	6/20/2012	SeqNo:	100099	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	74	157	1.02	23	
Surr: DNOP	0.56		0.5000		112	61.3	164	0	0	

Qualifiers:

* / X 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
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99906	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.
Value above quantitation range
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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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID: 5ml-rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES
Client ID: PBW	Batch ID: R3548	RunNo: 3548
Prep Date:	Analysis Date: 6/19/2012	SeqNo: 99906 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	1.0								
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	8.1		10.00		81.1	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	7.0		10.00		70.1	69.8	130			
Surr: Toluene-d8	8.8		10.00		87.8	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES
Client ID: LCSW	Batch ID: R3548	RunNo: 3548
Prep Date:	Analysis Date: 6/19/2012	SeqNo: 99909 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.9	84.1	126			
Toluene	18	1.0	20.00	0	88.7	80	120			
Chlorobenzene	18	1.0	20.00	0	89.5	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R3548			RunNo: 3548					
Prep Date:		Analysis Date: 6/19/2012			SeqNo: 99909		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	7.5		10.00		75.3	69.8	130			
Surr: Toluene-d8	8.5		10.00		84.8	70	130			

Sample ID	1206758-001ams	SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID: R3548		RunNo: 3548						
Prep Date:		Analysis Date: 6/20/2012		SeqNo: 99910			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	99	5.0	100.0	0	99.1	71.1	135			
Toluene	94	5.0	100.0	0	93.8	74	121			
Chlorobenzene	92	5.0	100.0	0	91.7	70	130			
1,1-Dichloroethene	91	5.0	100.0	0	91.4	76.3	127			
Trichloroethene (TCE)	87	5.0	100.0	0	87.0	70	130			
Surr: 1,2-Dichloroethane-d4	41		50.00		82.4	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.3	70	130			
Surr: Dibromofluoromethane	37		50.00		73.7	69.8	130			
Surr: Toluene-d8	43		50.00		86.9	70	130			

Sample ID	1206758-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99911	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	89	5.0	100.0	0	88.8	71.1	135	11.0	21.9	
Toluene	88	5.0	100.0	0	87.9	74	121	6.47	18.5	
Chlorobenzene	88	5.0	100.0	0	87.7	70	130	4.48	17.7	
1,1-Dichloroethene	83	5.0	100.0	0	83.3	76.3	127	9.23	16.5	
Trichloroethene (TCE)	81	5.0	100.0	0	81.0	70	130	7.13	18.9	
Surr: 1,2-Dichloroethane-d4	40		50.00		79.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	46		50.00		92.1	70	130	0	0	
Surr: Dibromofluoromethane	34		50.00		67.2	69.8	130	0	0	S
Surr: Toluene-d8	42		50.00		83.8	70	130	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206670-001C dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98404	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3200	0.010						3.54	20	

Sample ID	1206736-005C dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98418	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	4500	0.010						0.355	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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99939	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.3		10.00		93.4	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/19/2012	SeqNo:	99940	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	85	115			
Surr: BFB	9.3		10.00		92.6	70	130			

Sample ID	1206758-001amsdg	SampType:	MSD	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99942	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	45		50.00		89.8	70	130	0	0	

Sample ID	1206758-001amsg	SampType:	MS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3548	RunNo:	3548					
Prep Date:		Analysis Date:	6/20/2012	SeqNo:	99943	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	46		50.00		92.3	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
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#: 1206698

16-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	1206670-001C dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98377	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.13	1.68								H

Sample ID	1206736-005C dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R3500	RunNo:	3500					
Prep Date:		Analysis Date:	6/18/2012	SeqNo:	98394	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.49	1.68								H

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



4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1206698

Received by/date: AG 06/15/12

Logged By: Anne Thorne

6/15/2012 9:31:00 AM

Anne Thorne

Completed By: Anne Thorne

6/15/2012

Anne Thorne

Reviewed By: mg

06/15/12

Chain of Custody

1. Were seals intact?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒ No ☐ Not Present ☐

Yes ☒ No ☐ Not Present ☐

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 $>0^{\circ}\text{C}$ 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: ☐ 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			



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Client: Western Refining						☐ Standard ☐ Rush
						Project Name 2nd QTR 2012 Groundwater Sampling
Mailing Address: Rt 3 Box 7 Gallup, NM 87301						Project #: Quarterly Sampling
Phone #: 505-722-3833						
email or Fax#: 505-722-0210						
QA/QC Package:						
☐ Standard ☐ Level 4 (Full Validation)						
Accreditation:						
☐ NELAP ☐ Other _____						
☐ EDD (Type) _____						Sampler: Cheryl Johnson
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	
6/13/12	0905	N	OW-1	VARS	VAR-105	-001
6/13/12	1005	N	OW-10	1		-002
6/13/12	0835	N	FIELD BLANK			-003
			Trip Blank			-004
Date:	Time:	Relinquished by:	Received by:		Date:	Time:
6/15/12	0931	Don Glanville	(Signature)		6/15/12	0931
Date:	Time:	Relinquished by:	Received by:		Date:	Time:
			(Signature)			

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

September 04, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX: (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208992

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/22/2012 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 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1208992

Date Reported: 9/4/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2 Inlet

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 7:55:00 PM

Lab ID: 1208992-001

Matrix: AQUEOUS

Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 5:17:36 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 5:17:36 PM
Surr: DNOP	148	79.5-166		%REC	1	8/23/2012 5:17:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/24/2012 5:21:29 PM
Surr: BFB	104	69.8-119		%REC	1	8/24/2012 5:21:29 PM
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	ND	2.0		mg/L	1	8/28/2012 5:49:00 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:34:20 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:34:20 AM
Acetone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM

Qualifiers: 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
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

Analytical Report

Lab Order 1208992

Date Reported: 9/4/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2 Inlet

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 7:55:00 PM

Lab ID: 1208992-001

Matrix: AQUEOUS

Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 4:34:20 AM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: Dibromofluoromethane	95.0	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: Toluene-d8	101	70-130		%REC	1	8/25/2012 4:34:20 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	3720	20.0		mg/L	1	8/30/2012 11:32:00 AM

Qualifiers: 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
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

Analytical Report

Lab Order 1208992

Date Reported: 9/4/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 8:05:00 PM

Lab ID: 1208992-002

Matrix: AQUEOUS

Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:02:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:02:36 AM
Acetone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM

Qualifiers: 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
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

Analytical Report

Lab Order 1208992

Date Reported: 9/4/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/21/2012 8:05:00 PM**Lab ID:** 1208992-002**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 5:02:36 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: Toluene-d8	99.6	70-130		%REC	1	8/25/2012 5:02:36 AM

Qualifiers:	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	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits
	X	Value exceeds Maximum Contaminant Level.		



12065 Lebanon Rd.
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Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 29, 2012

Date Received : August 24, 2012
Description :
Sample ID : 1208992-001D EP-2 INLET
Collected By :
Collection Date : 08/21/12 19:55

ESC Sample # : L591698-01
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	BDL	10.	mg/l	410.4	08/28/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 08/29/12 09:15 Printed: 08/29/12 09:15



Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L591698

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

August 29, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG609724	08/28/12 16:03

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	14.0	15.0	5.48*	5	L591808-01	WG609724
COD	mg/l	0	0	0	5	L591399-02	WG609724

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	238.	103.	90-110	WG609724

Analyte	Units	Result	Laboratory Control Sample Duplicate Ref	% Rec	Limit	RPD	Limit	Batch
COD	mg/l	240.	238.	104.	90-110	0.837	5	WG609724

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	486.	84.0	400	100.	90-110	L591674-01	WG609724

Analyte	Units	MSD	Matrix Spike Duplicate Ref	% Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	488.	486.	101.	90-110	0.411	5	L591674-01	WG609724

Batch number /Run number / Sample number cross reference

WG609724: R2320393: L591698-01

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: MB-3460	SampType: MBLK	TestCode: EPA Method 8015B: Diesel Range								
Client ID: PBW	Batch ID: 3460	RunNo: 5044								
Prep Date: 8/23/2012	Analysis Date: 8/23/2012	SeqNo: 143373			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	1.3		1.000		126	79.5	166			

Sample ID: LCS-3460	SampType: LCS	TestCode: EPA Method 8015B: Diesel Range								
Client ID: LCSW	Batch ID: 3460	RunNo: 5044								
Prep Date: 8/23/2012	Analysis Date: 8/23/2012	SeqNo: 143388			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	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID: LCSD-3460	SampType: LCSD	TestCode: EPA Method 8015B: Diesel Range								
Client ID: LCSS02	Batch ID: 3460	RunNo: 5044								
Prep Date: 8/23/2012	Analysis Date: 8/23/2012	SeqNo: 143389			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

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

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ML RB	SampType: MBLK	TestCode: EPA Method 8015B: Gasoline Range									
Client ID: PBW	Batch ID: R5110	RunNo: 5110									
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145076 Units: mg/L									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	0.050									
Surr: BFB	20		20.00		99.2	69.8	119				

Sample ID: 2.5UG GRO LCSB	SampType: LCS	TestCode: EPA Method 8015B: Gasoline Range									
Client ID: LCSW	Batch ID: R5110	RunNo: 5110									
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145077 Units: mg/L									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119				
Surr: BFB	18		20.00		88.2	69.8	119				

Sample ID: 1208990-001AMS	SampType: MS	TestCode: EPA Method 8015B: Gasoline Range									
Client ID: BatchQC	Batch ID: R5110	RunNo: 5110									
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145080 Units: mg/L									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131				
: BFB	210		200.0		106	69.8	119				

Sample ID: 1208990-001AMSD	SampType: MSD	TestCode: EPA Method 8015B: Gasoline Range									
Client ID: BatchQC	Batch ID: R5110	RunNo: 5110									
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145081 Units: mg/L									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7		
Surr: BFB	210		200.0		105	69.8	119	0	0		

Comments:

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

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ML RB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBW	Batch ID: R5110	RunNo: 5110								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145099			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batch ID: R5110	RunNo: 5110								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145100			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID: 1208A05-001AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BatchQC	Batch ID: R5110	RunNo: 5110								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145103			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID: 1208A05-001AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: BatchQC	Batch ID: R5110	RunNo: 5110								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 145104			Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

Qualifiers:

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

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R5105	RunNo: 5105								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 144786	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								

Comments:

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

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R5105	RunNo: 5105								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 144786	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
sopropylbenzene	ND	1.0								
1-Isopropyltoluene	ND	1.0								
1-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								
Cylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R5105	RunNo: 5105								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 144788	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

Qualifiers:

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	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R5105	RunNo: 5105								
Prep Date:	Analysis Date: 8/24/2012	SeqNo: 144788			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Comments:

- | | | | |
|----|--|---|---|
| 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 | R | RPD outside accepted recovery limits |
| RL | Reporting Detection Limit | S | Spike Recovery outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: MB-3456	SampType: MBLK	TestCode: SM5210B: BOD								
Client ID: PBW	Batch ID: 3456	RunNo: 5122								
Prep Date: 8/23/2012	Analysis Date: 8/28/2012	SeqNo: 145574 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID: MB-3456	SampType: MBLK	TestCode: SM5210B: BOD								
Client ID: PBW	Batch ID: 3456	RunNo: 5122								
Prep Date: 8/23/2012	Analysis Date: 8/28/2012	SeqNo: 145575 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID: LCS-3456	SampType: LCS	TestCode: SM5210B: BOD								
Client ID: LCSW	Batch ID: 3456	RunNo: 5122								
Prep Date: 8/23/2012	Analysis Date: 8/28/2012	SeqNo: 145576 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	92.9	84.6	115.4			

Sample ID: LCSD-3456	SampType: LCSD	TestCode: SM5210B: BOD								
Client ID: LCSS02	Batch ID: 3456	RunNo: 5122								
Prep Date: 8/23/2012	Analysis Date: 8/28/2012	SeqNo: 145577 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	93.4	84.6	115.4	0.542	20	

Sample ID: 1208937-002ADUP		SampType: DUP		TestCode: SM5210B: BOD						
Client ID: BatchQC		Batch ID: 3456		RunNo: 5122						
Prep Date: 8/23/2012		Analysis Date: 8/28/2012		SeqNo: 145582			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	62	2.0						0.0962	20	

Qualifiers:

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	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208992

04-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: MB-3480	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 3480	RunNo: 5206								
Prep Date: 8/24/2012	Analysis Date: 8/30/2012	SeqNo: 148126 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: LCS-3480		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids						
Client ID: LCSW		Batch ID: 3480		RunNo: 5206						
Prep Date: 8/24/2012		Analysis Date: 8/30/2012		SeqNo: 148127		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID: 1208996-002BMS		SampType: MS		TestCode: SM2540C MOD: Total Dissolved Solids						
Client ID: BatchQC		Batch ID: 3480		RunNo: 5206						
Prep Date: 8/24/2012		Analysis Date: 8/30/2012		SeqNo: 148131		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1390	20.0	1000	378.0	102	80	120			

Sample ID: 1208996-002BMSD		SampType: MSD		TestCode: SM2540C MOD: Total Dissolved Solids						
Client ID: BatchQC		Batch ID: 3480		RunNo: 5206						
Prep Date: 8/24/2012		Analysis Date: 8/30/2012		SeqNo: 148132		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1400	20.0	1000	378.0	102	80	120	0.501	20	

Comments:

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

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery 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:	1208992
Received by/date:	AT 08/22/12		
Logged By:	Anne Thorne	8/22/2012 1:22:00 PM	<i>Anne Thorne</i>
Completed By:	Anne Thorne	8/22/2012	<i>Anne Thorne</i>
Reviewed By:	<i>[Signature]</i> 08/22/12		

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 ☒ 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°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:	<u>(2 of 12 unless noted)</u>
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			



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

September 19, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208B32

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/24/2012 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 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1208B32

Date Reported: 9/19/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:10:00 AM

Lab ID: 1208B32-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2012 5:04:19 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2012 5:04:19 PM
Surr: DNOP	133	79.5-166		%REC	1	8/27/2012 5:04:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 4:15:08 AM
Surr: BFB	103	69.8-119		%REC	1	8/29/2012 4:15:08 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	0.24	0.10		mg/L	1	8/27/2012 5:26:42 PM
Chloride	62	10		mg/L	20	8/27/2012 6:03:58 PM
Bromide	0.26	0.10		mg/L	1	8/27/2012 5:26:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 5:26:42 PM
Sulfate	170	10		mg/L	20	8/27/2012 6:03:58 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:41:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.029	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Calcium	2.4	1.0		mg/L	1	9/12/2012 2:07:29 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:07:29 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:07:29 PM
Iron	ND	0.020		mg/L	1	9/12/2012 2:07:29 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:07:29 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 2:07:29 PM
Manganese	0.0086	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:07:29 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:07:29 PM
Sodium	330	5.0		mg/L	5	9/12/2012 2:11:32 PM
Zinc	0.011	0.010		mg/L	1	9/12/2012 2:07:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.039	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:09:52 AM
Copper	0.0080	0.0060		mg/L	1	9/10/2012 7:09:52 AM
Iron	0.19	0.020		mg/L	1	9/10/2012 7:09:52 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:09:52 AM
Manganese	0.027	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Silver	ND	0.0050		mg/L	1	9/10/2012 7:09:52 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:09:52 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/6/2012 2:40:58 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:10:00 AM

Lab ID: 1208B32-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	0.0036	0.0010		mg/L	1	9/6/2012 2:40:58 PM
Uranium	0.041	0.0010	*	mg/L	1	9/6/2012 2:40:58 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 2:10:09 PM
Selenium	0.0041	0.0025		mg/L	2.5	8/30/2012 2:10:09 PM
Uranium	0.040	0.0025	*	mg/L	2.5	8/30/2012 2:10:09 PM
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:19:10 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Aniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Carbazole	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Chrysene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 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

Analytical Report

Lab Order 1208B32

Date Reported: 9/19/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:10:00 AM

Lab ID: 1208B32-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Fluorene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Isophorone	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Phenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pyridine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Surr: 2,4,6-Tribromophenol	77.2	44.2-126		%REC	1	8/29/2012 7:21:14 PM
Surr: 2-Fluorobiphenyl	70.8	37-114		%REC	1	8/29/2012 7:21:14 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:10:00 AM

Lab ID: 1208B32-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	46.7	23.4-98		%REC	1	8/29/2012 7:21:14 PM
Surr: 4-Terphenyl-d14	61.4	41.3-116		%REC	1	8/29/2012 7:21:14 PM
Surr: Nitrobenzene-d5	71.7	39.5-118		%REC	1	8/29/2012 7:21:14 PM
Surr: Phenol-d5	39.6	20.9-95.9		%REC	1	8/29/2012 7:21:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 5:20:26 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 5:20:26 AM
Acetone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 5:20:26 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:10:00 AM

Lab ID: 1208B32-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 5:20:26 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: Dibromofluoromethane	98.5	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: Toluene-d8	101	70-130		%REC	1	8/30/2012 5:20:26 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:35:00 AM

Lab ID: 1208B32-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2012 5:26:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2012 5:26:28 PM
Surr: DNOP	127	79.5-166		%REC	1	8/27/2012 5:26:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 4:45:19 AM
Surr: BFB	101	69.8-119		%REC	1	8/29/2012 4:45:19 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	0.34	0.10		mg/L	1	9/5/2012 9:35:39 PM
Chloride	280	10		mg/L	20	8/27/2012 6:53:37 PM
Bromide	0.59	0.10		mg/L	1	9/5/2012 9:35:39 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/5/2012 9:35:39 PM
Sulfate	130	10		mg/L	20	8/27/2012 6:53:37 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:54:15 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.034	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Calcium	29	1.0		mg/L	1	9/12/2012 2:15:10 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:15:10 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:15:10 PM
Iron	ND	0.020		mg/L	1	9/12/2012 2:15:10 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:15:10 PM
Magnesium	5.4	1.0		mg/L	1	9/12/2012 2:15:10 PM
Manganese	ND	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Potassium	1.0	1.0		mg/L	1	9/12/2012 2:15:10 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:15:10 PM
Sodium	410	5.0		mg/L	5	9/12/2012 2:37:37 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 2:15:10 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.037	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:16:44 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 7:16:44 AM
Iron	0.030	0.020		mg/L	1	9/10/2012 7:16:44 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:16:44 AM
Manganese	0.0034	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Silver	ND	0.0050		mg/L	1	9/10/2012 7:16:44 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:16:44 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0010	0.0010		mg/L	1	9/6/2012 2:44:54 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

Analytical Report

Lab Order 1208B32

Date Reported: 9/19/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:35:00 AM

Lab ID: 1208B32-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	0.0076	0.0010		mg/L	1	9/6/2012 2:44:54 PM
Uranium	0.050	0.0010	*	mg/L	1	9/6/2012 2:44:54 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 2:14:05 PM
Selenium	0.0084	0.0025		mg/L	2.5	8/30/2012 2:14:05 PM
Uranium	0.049	0.0025	*	mg/L	2.5	8/30/2012 2:14:05 PM
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:20:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Aniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Carbazole	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Chrysene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:35:00 AM

Lab ID: 1208B32-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Fluorene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Isophorone	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Phenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pyridine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Surr: 2,4,6-Tribromophenol	103	44.2-126		%REC	1	8/29/2012 7:51:16 PM
Surr: 2-Fluorobiphenyl	89.0	37-114		%REC	1	8/29/2012 7:51:16 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:35:00 AM

Lab ID: 1208B32-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	61.6	23.4-98		%REC	1	8/29/2012 7:51:16 PM
Surr: 4-Terphenyl-d14	84.7	41.3-116		%REC	1	8/29/2012 7:51:16 PM
Surr: Nitrobenzene-d5	93.5	39.5-118		%REC	1	8/29/2012 7:51:16 PM
Surr: Phenol-d5	49.6	20.9-95.9		%REC	1	8/29/2012 7:51:16 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Methyl tert-butyl ether (MTBE)	44	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 6:48:21 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 6:48:21 AM
Acetone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 6:48:21 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:35:00 AM

Lab ID: 1208B32-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 6:48:21 AM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: Dibromofluoromethane	109	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	8/30/2012 6:48:21 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

Analytical Report

Lab Order 1208B32

Date Reported: 9/19/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:45:00 AM

Lab ID: 1208B32-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:17:35 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:17:35 AM
Acetone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 7:17:35 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/22/2012 10:45:00 AM

Lab ID: 1208B32-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 7:17:35 AM
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: Dibromofluoromethane	93.9	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: Toluene-d8	99.1	70-130		%REC	1	8/30/2012 7:17:35 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

Analytical Report

Lab Order 1208B32

Date Reported: 9/19/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1208B32-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 5:15:23 AM
Surr: BFB	87.1	69.8-119		%REC	1	8/29/2012 5:15:23 AM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:46:49 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:46:49 AM
Acetone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:46:49 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 1208B32

Date Reported: 9/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1208B32-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 7:46:49 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: Toluene-d8	97.3	70-130		%REC	1	8/30/2012 7:46:49 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3525		SampType:	MBLK		TestCode:	EPA Method 200.7: Metals			
Client ID:	PBW		Batch ID:	3525		RunNo:	5189			
Prep Date:	8/29/2012		Analysis Date:	8/29/2012		SeqNo:	147585		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-3525		SampType:	LCS		TestCode:	EPA Method 200.7: Metals			
Client ID:	LCSW		Batch ID:	3525		RunNo:	5189			
Prep Date:	8/29/2012		Analysis Date:	8/29/2012		SeqNo:	147586		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R5457		RunNo: 5457							
Prep Date:	Analysis Date: 9/12/2012		SeqNo: 155926		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R5457		RunNo: 5457							
p Date:	Analysis Date: 9/12/2012		SeqNo: 155927		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			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID 1208996-003DMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R5457		RunNo: 5457							
Prep Date:	Analysis Date: 9/12/2012		SeqNo: 156329		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208996-003DMS	SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R5457			RunNo: 5457					
Prep Date:		Analysis Date: 9/12/2012			SeqNo: 156329		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID	1208996-003DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R5457		RunNo: 5457					
Prep Date:			Analysis Date: 9/12/2012		SeqNo: 156330		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156332	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID	1208996-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156333	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R5457		RunNo: 5457							
Prep Date:	Analysis Date: 9/12/2012		SeqNo: 156417		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R5457		RunNo: 5457							
p Date:	Analysis Date: 9/12/2012		SeqNo: 156418		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID 1208A83-002AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R5457		RunNo: 5457							
Prep Date:	Analysis Date: 9/12/2012		SeqNo: 156420		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156420	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID	1208A83-002AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156421	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156423	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID	1208A83-002AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156424	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	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

WO#: 1208B32

all Environmental Analysis Laboratory, Inc.

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3525		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	3525		RunNo:	5189			
Prep Date:	8/29/2012		Analysis Date:	8/29/2012		SeqNo:	147561		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-3525		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	3525		RunNo:	5189			
Prep Date:	8/29/2012		Analysis Date:	8/29/2012		SeqNo:	147562		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

Sample ID	1208B32-002EMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-10		Batch ID:	3525		RunNo:	5404			
Prep Date:	8/29/2012		Analysis Date:	9/10/2012		SeqNo:	154044		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Copper	0.55	0.0060	0.5000	0	111	70	130			
Iron	0.53	0.020	0.5000	0.03049	101	70	130			
Lead	0.50	0.0050	0.5000	0	101	70	130			
Manganese	0.50	0.0020	0.5000	0.003420	99.3	70	130			
Silver	0.083	0.0050	0.1000	0	83.1	70	130			
Zinc	0.51	0.010	0.5000	0.004410	102	70	130			

Modifiers:

V	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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B32-002EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-10		Batch ID:	3525		RunNo:	5404			
Prep Date:	8/29/2012		Analysis Date:	9/10/2012		SeqNo:	154045		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130	0.161	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.150	20	
Chromium	0.50	0.0060	0.5000	0	100	70	130	0.617	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.586	20	
Iron	0.54	0.020	0.5000	0.03049	102	70	130	0.996	20	
Lead	0.50	0.0050	0.5000	0	101	70	130	0.131	20	
Manganese	0.50	0.0020	0.5000	0.003420	99.5	70	130	0.180	20	
Silver	0.081	0.0050	0.1000	0	80.6	70	130	3.13	20	
Zinc	0.51	0.010	0.5000	0.004410	101	70	130	0.933	20	

Sample ID	MB-3525		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	3525		RunNo:	5231			
Prep Date:	8/29/2012		Analysis Date:	8/30/2012		SeqNo:	159950		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID	LCS-3525		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	3525		RunNo:	5231			
Prep Date:	8/29/2012		Analysis Date:	8/30/2012		SeqNo:	159951		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0	96.2	85	115			

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

WO#: 1208B32

all Environmental Analysis Laboratory, Inc.

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3525	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	3525	RunNo:	5235					
Prep Date:	8/29/2012	Analysis Date:	8/30/2012	SeqNo:	148846	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Modifiers:

- | | | |
|--|----|--|
| 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208476-008EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152349	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID	1208654-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152351	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID	1208944-008AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152364	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152381	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID	1208B35-001DMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152398	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152416	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152416		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152417		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152420		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152421		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Modifiers:

V	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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3525	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	3525	RunNo:	5235					
Prep Date:	8/29/2012	Analysis Date:	8/30/2012	SeqNo:	148879	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3672	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-3672	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	1208B33-004EMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155059	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID	1208B33-004EMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155060	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R5147	RunNo: 5147								
Prep Date:	Analysis Date: 8/27/2012	SeqNo: 146216	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								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R5147	RunNo: 5147								
Prep Date:	Analysis Date: 8/27/2012	SeqNo: 146217	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID 1208B32-001CMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: OW-1	Batch ID: R5147	RunNo: 5147								
Prep Date:	Analysis Date: 8/27/2012	SeqNo: 146223	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID 1208B32-001CMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: OW-1	Batch ID: R5147	RunNo: 5147								
Prep Date:	Analysis Date: 8/27/2012	SeqNo: 146224	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID 1208B37-001BMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R5147	RunNo: 5147								
Prep Date:	Analysis Date: 8/27/2012	SeqNo: 146231	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B37-001BMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R5147		RunNo:	5147				
Prep Date:	Analysis Date:			8/27/2012		SeqNo:	146232		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20		
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20		

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R5147			RunNo: 5147					
Prep Date:		Analysis Date: 8/28/2012			SeqNo: 146268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R5147		RunNo: 5147					
Prep Date:			Analysis Date: 8/28/2012		SeqNo: 146269		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID	1208B33-006CMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R5147		RunNo: 5147					
Prep Date:			Analysis Date: 8/28/2012		SeqNo: 146277		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID	1208B33-006CMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R5147		RunNo:	5147				
Prep Date:			Analysis Date:	8/28/2012		SeqNo:	146278		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20		
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20		

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R5322	RunNo: 5322								
Prep Date:	Analysis Date: 9/5/2012	SeqNo: 151477 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R5322	RunNo: 5322								
Prep Date:	Analysis Date: 9/5/2012	SeqNo: 151478 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	95.9	90	110			
Bromide	2.4	0.10	2.500	0	97.7	90	110			
Phosphorus, Orthophosphate (As P)	5.2	0.50	5.000	0	104	90	110			

Sample ID 1209055-001AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R5322	RunNo: 5322								
Prep Date:	Analysis Date: 9/5/2012	SeqNo: 151480 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	1.8	0.10	0.5000	1.408	88.4	76.6	110			
Bromide	2.6	0.10	2.500	0.2202	96.5	83.3	107			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.9	74.5	115			

Sample ID 1209055-001AMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R5322	RunNo: 5322								
Prep Date:	Analysis Date: 9/5/2012	SeqNo: 151481 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	1.8	0.10	0.5000	1.408	84.7	76.6	110	1.00	20	
Bromide	2.6	0.10	2.500	0.2202	95.1	83.3	107	1.28	20	
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.2	74.5	115	0.694	20	

Sample ID 1208D52-002AMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: BatchQC	Batch ID: R5322	RunNo: 5322								
Prep Date:	Analysis Date: 9/5/2012	SeqNo: 151501 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.87	0.10	0.5000	0.3986	93.6	76.6	110			
Bromide	2.5	0.10	2.500	0.09376	96.1	83.3	107			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208D52-002AMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:		R5322		RunNo:	5322			
Prep Date:			Analysis Date:		9/5/2012		SeqNo:	151502		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.87	0.10	0.5000	0.3986	94.9	76.6	110	0.710	20		
Bromide	2.5	0.10	2.500	0.09376	97.5	83.3	107	1.38	20		

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R5322		RunNo: 5322						
Prep Date:		Analysis Date: 9/6/2012		SeqNo: 151543		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R5322	RunNo:	5322					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	151544	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ide	0.48	0.10	0.5000	0	96.6	90	110			
bromide	2.4	0.10	2.500	0	96.6	90	110			
Phosphorus, Orthophosphate (As P	5.2	0.50	5.000	0	104	90	110			

Sample ID	1209146-002AMS			SampType:	MS		TestCode:	EPA Method 300.0: Anions		
Client ID:	BatchQC		Batch ID:	R5322		RunNo:	5322			
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	151550		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.0	0.50	2.500	0.7156	90.7	76.6	110			
Bromide	12	0.50	12.50	0	95.7	83.3	107			
Phosphorus, Orthophosphate (As P	30	2.5	25.00	3.996	103	74.5	115			

Sample ID	1209146-002AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5322	RunNo:	5322					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	151551	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.50	2.500	0.7156	94.5	76.6	110	3.19	20	
Bromide	12	0.50	12.50	0	96.7	83.3	107	0.991	20	
Phosphorus, Orthophosphate (As P	30	2.5	25.00	3.996	103	74.5	115	0.532	20	

Qualifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3489		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	PBW		Batch ID:	3489		RunNo:	5106			
Prep Date:	8/27/2012		Analysis Date:	8/27/2012		SeqNo:	145462	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	1.2		1.000		118	79.5	166			

Sample ID	LCS-3489		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	LCSW		Batch ID:	3489		RunNo:	5106			
Prep Date:	8/27/2012		Analysis Date:	8/27/2012		SeqNo:	145463	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.2	74	157			
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID	LCSD-3489		SampType:	LCSD		TestCode:	EPA Method 8015B: Diesel Range			
Client ID:	LCSS02		Batch ID:	3489		RunNo:	5106			
Prep Date:	8/27/2012		Analysis Date:	8/27/2012		SeqNo:	145464	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	84.5	74	157	5.19	23	
Surr: DNOP	0.52		0.5000		104	79.5	166	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

WO#: 1208B32

Full Environmental Analysis Laboratory, Inc.

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146891	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		103	69.8	119			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146892	Units:	mg/L			
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	92.6	75.9	119			
Surr: BFB	18		20.00		87.8	69.8	119			

Sample ID	1208A51-009AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146896	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.84	0.050	0.5000	0.1474	138	63.5	131			S
Surr: BFB	24		20.00		118	69.8	119			

Sample ID	1208A51-009AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146897	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.84	0.050	0.5000	0.1474	138	63.5	131	0.454	16.7	S
Surr: BFB	26		20.00		132	69.8	119	0	0	S

Modifiers:

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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146941	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146942	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		97.7	55	140			

Sample ID	1208A51-008AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146945	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		99.3	55	140			

Sample ID	1208A51-008AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R5164	RunNo:	5164					
Prep Date:		Analysis Date:	8/28/2012	SeqNo:	146946	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		97.6	55	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R5192			RunNo: 5192					
Prep Date:		Analysis Date: 8/29/2012			SeqNo: 147638		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								
anone	ND	10								
on 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								

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147638	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	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng Ics	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147639	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Toluene	21	1.0	20.00	0	103	80	120			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R5192		RunNo: 5192							
Prep Date:	Analysis Date: 8/29/2012		SeqNo: 147639		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R5192		RunNo: 5192							
Prep Date:	Analysis Date: 8/29/2012		SeqNo: 147640		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.7	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.6	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID 1208b32-001ams	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: OW-1	Batch ID: R5192		RunNo: 5192							
Prep Date:	Analysis Date: 8/30/2012		SeqNo: 147829		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.3	66.8	128			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.9	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 1208b32-001amsd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: OW-1	Batch ID: R5192		RunNo: 5192							
Prep Date:	Analysis Date: 8/30/2012		SeqNo: 147831		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.5	66.8	128	0.291	16.7	
Toluene	21	1.0	20.00	0	103	70	130	4.19	18.7	
Chlorobenzene	20	1.0	20.00	0	102	70	130	0.235	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130	2.39	16.7	

Modifiers:

- | | | | |
|---|--|----|--|
| V | 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208b32-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	OW-1	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/30/2012	SeqNo:	147831	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	1.31	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		98.9	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID	b2	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R5192		RunNo: 5192						
Prep Date:		Analysis Date: 8/29/2012		SeqNo: 147929		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								

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: b2	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147929	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
tylbenzene	ND	3.0								
pylbenzene	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	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: R5192		RunNo: 5192							
Prep Date:	Analysis Date: 8/29/2012		SeqNo: 147886		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
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	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: PBW	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147886 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: LCSW	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147888 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Toluene	21	1.0	20.00	0	103	80	120			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID: 1208981-001AMS	SampType: MS	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: BatchQC	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147934 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	2.0	40.00	0.8444	91.3	66.8	128			
Chlorobenzene	38	2.0	40.00	0	94.0	70	130			
1,1-Dichloroethene	38	2.0	40.00	0	96.1	70	130			
Toluene	41	2.0	40.00	0	102	70	130			
Trichloroethene (TCE)	35	2.0	40.00	0	87.5	70	130			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	70	130			
Surr: Dibromofluoromethane	19		20.00		95.3	70	130			
Surr: Toluene-d8	19		20.00		94.7	70	130			

Modifiers:

- | | |
|--|--|
| 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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208981-001AMSD		SampType: MSD		TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	BatchQC		Batch ID: R5192		RunNo: 5192					
Prep Date:			Analysis Date: 8/29/2012		SeqNo: 147936		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0.8444	98.8	66.8	128	7.78	16.7	
Chlorobenzene	36	2.0	40.00	0	89.2	70	130	5.30	19.5	
1,1-Dichloroethene	38	2.0	40.00	0	96.2	70	130	0.0583	16.7	
Toluene	37	2.0	40.00	0	91.9	70	130	10.5	18.7	
Trichloroethene (TCE)	35	2.0	40.00	0	87.6	70	130	0.0994	17.5	
Surr: 1,2-Dichloroethane-d4	19		20.00		95.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	19		20.00		95.3	70	130	0	0	
Surr: Dibromofluoromethane	21		20.00		103	70	130	0	0	
Surr: Toluene-d8	18		20.00		90.1	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

QC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	3504	RunNo:	5185					
Prep Date:	8/28/2012	Analysis Date:	8/29/2012	SeqNo:	147346	Units:	µg/L			
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								
3,3'-mopphenyl phenyl ether	ND	10								
3,3'-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:

V	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#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	3504	RunNo:	5185					
Prep Date:	8/28/2012	Analysis Date:	8/29/2012	SeqNo:	147346	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	20								
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		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

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

Full Environmental Analysis Laboratory, Inc.

WO#: 1208B32

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	Ics-3504		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 3504		RunNo: 5185					
Prep Date:	8/28/2012		Analysis Date: 8/29/2012		SeqNo: 147347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID	Icsd-3504		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 3504		RunNo: 5185					
Prep Date:	8/28/2012		Analysis Date: 8/29/2012		SeqNo: 147348		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	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

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 |

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1208B32

Received by/date: Lon 08/24/12

Logged By: Anne Thorne 8/24/2012 3:40:00 PM

Completed By: Anne Thorne 8/27/2012

Reviewed By: mg 08/27/12

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 ☒ 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°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: 6

Adjusted? (<2 or >12 unless noted)

Checked by: [Signature]

Special Handling (if applicable)

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

Person Notified:	<u>[Signature]</u>	Date:	<u>08/27/12</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

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

Mailing Address:

Rt 3 Box 7

Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

Date Time Matrix Sample Request ID

8/24/12	1010	GW	OW-1	11	HEAL No. 1208B32
8/24/12	1035	GW	OW-10	11	
8/24/12	1045	W	Field Blank	3	
8/24/12	—	W	Trip Blank	3	

Date: 8/24/12 1540

Time: 1540

Relinquished by:

Received by:

Date: 8/24/12

Time: 1540

Remarks:

Turn-Around Time:

☐ Standard ☐ Rush

Project Name:

3rd QTR 2012 Groundwater

Sampling

Project #:

Annual Sampling

Project Manager:

Cheryl Johnson

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

8015B (DRO/GRO) WQCC Metals (Total and Dissolved)

Air Bubbles (Y or N)



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

September 21, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208B33

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/24/2012 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 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:20:00 AM

Lab ID: 1208B33-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	2.3	0.10		mg/L	1	8/27/2012 10:24:38 PM
Chloride	34	10		mg/L	20	8/27/2012 10:37:04 PM
Bromide	ND	0.10		mg/L	1	8/27/2012 10:24:38 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 10:24:38 PM
Sulfate	260	10		mg/L	20	8/27/2012 10:37:04 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 8:35:36 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.016	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Calcium	3.2	1.0		mg/L	1	9/12/2012 6:57:24 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 6:57:24 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 6:57:24 PM
Iron	ND	0.020		mg/L	1	9/12/2012 6:57:24 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 6:57:24 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 6:57:24 PM
Manganese	0.0029	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Potassium	1.1	1.0		mg/L	1	9/12/2012 6:57:24 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 6:57:24 PM
Sodium	330	5.0		mg/L	5	9/12/2012 7:01:25 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 6:57:24 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.028	0.0020		mg/L	1	9/10/2012 7:39:05 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:39:05 AM
Chromium	0.22	0.0060	*	mg/L	1	9/10/2012 7:39:05 AM
Copper	0.0062	0.0060		mg/L	1	9/10/2012 7:39:05 AM
Iron	0.49	0.020	*	mg/L	1	9/10/2012 7:39:05 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:39:05 AM
Manganese	0.068	0.0020	*	mg/L	1	9/10/2012 7:39:05 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:47:22 AM
Zinc	0.011	0.010		mg/L	1	9/10/2012 7:39:05 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/6/2012 2:48:50 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 2:48:50 PM
Uranium	0.0050	0.0010		mg/L	1	9/6/2012 2:48:50 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
Uranium	0.0052	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:20:00 AM

Lab ID: 1208B33-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:22:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Aniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Carbazole	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Chrysene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 8:21:13 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:20:00 AM

Lab ID: 1208B33-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Fluorene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Isophorone	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Phenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pyridine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Surr: 2,4,6-Tribromophenol	93.7	44.2-126		%REC	1	8/29/2012 8:21:13 PM
Surr: 2-Fluorobiphenyl	79.1	37-114		%REC	1	8/29/2012 8:21:13 PM
Surr: 2-Fluorophenol	62.7	23.4-98		%REC	1	8/29/2012 8:21:13 PM
Surr: 4-Terphenyl-d14	73.3	41.3-116		%REC	1	8/29/2012 8:21:13 PM
Surr: Nitrobenzene-d5	86.5	39.5-118		%REC	1	8/29/2012 8:21:13 PM
Surr: Phenol-d5	51.4	20.9-95.9		%REC	1	8/29/2012 8:21:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:20:00 AM

Lab ID: 1208B33-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 2:57:47 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 2:57:47 PM
Acetone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:20:00 AM

Lab ID: 1208B33-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 2:57:47 PM
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: Dibromofluoromethane	86.1	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: Toluene-d8	83.4	70-130		%REC	1	8/31/2012 2:57:47 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:15:00 AM

Lab ID: 1208B33-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	0.95	0.10		mg/L	1	8/28/2012 1:18:27 AM
Chloride	38	10		mg/L	20	8/28/2012 1:30:52 AM
Bromide	0.54	0.10		mg/L	1	8/28/2012 1:18:27 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 1:18:27 AM
Sulfate	6.8	0.50		mg/L	1	8/28/2012 1:18:27 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 8:48:01 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.14	0.0020		mg/L	1	9/12/2012 7:05:08 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:05:08 PM
Calcium	8.8	1.0		mg/L	1	9/12/2012 7:05:08 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:05:08 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:05:08 PM
Iron	0.26	0.020		mg/L	1	9/12/2012 7:05:08 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:05:08 PM
Magnesium	3.4	1.0		mg/L	1	9/12/2012 7:05:08 PM
Manganese	0.13	0.0020	*	mg/L	1	9/12/2012 7:05:08 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 7:05:08 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:05:08 PM
Sodium	340	5.0		mg/L	5	9/12/2012 7:09:09 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 7:05:08 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.15	0.0020		mg/L	1	9/10/2012 7:58:12 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:58:12 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:58:12 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 7:58:12 AM
Iron	0.49	0.020	*	mg/L	1	9/10/2012 7:58:12 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:58:12 AM
Manganese	0.16	0.0020	*	mg/L	1	9/10/2012 7:58:12 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:51:04 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:58:12 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0072	0.0010		mg/L	1	9/6/2012 2:52:46 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 2:52:46 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 2:52:46 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0072	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:15:00 AM

Lab ID: 1208B33-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:24:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Aniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Carbazole	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Chrysene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 8:50:54 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:15:00 AM

Lab ID: 1208B33-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Fluorene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Isophorone	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Phenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pyridine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Surr: 2,4,6-Tribromophenol	83.2	44.2-126		%REC	1	8/29/2012 8:50:54 PM
Surr: 2-Fluorobiphenyl	65.0	37-114		%REC	1	8/29/2012 8:50:54 PM
Surr: 2-Fluorophenol	47.7	23.4-98		%REC	1	8/29/2012 8:50:54 PM
Surr: 4-Terphenyl-d14	64.6	41.3-116		%REC	1	8/29/2012 8:50:54 PM
Surr: Nitrobenzene-d5	67.5	39.5-118		%REC	1	8/29/2012 8:50:54 PM
Surr: Phenol-d5	36.8	20.9-95.9		%REC	1	8/29/2012 8:50:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:15:00 AM

Lab ID: 1208B33-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:21:16 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:21:16 PM
Acetone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:15:00 AM

Lab ID: 1208B33-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:21:16 PM
Surr: 1,2-Dichloroethane-d4	86.4	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: 4-Bromofluorobenzene	84.9	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: Dibromofluoromethane	83.4	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: Toluene-d8	84.2	70-130		%REC	1	8/31/2012 4:21:16 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:00:00 AM

Lab ID: 1208B33-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	1.3	0.10		mg/L	1	8/28/2012 2:08:06 AM
Chloride	27	10		mg/L	20	8/28/2012 2:20:31 AM
Bromide	0.22	0.10		mg/L	1	8/28/2012 2:08:06 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 2:08:06 AM
Sulfate	150	10		mg/L	20	8/28/2012 2:20:31 AM
Nitrate+Nitrite as N	1.4	1.0		mg/L	5	8/28/2012 9:00:26 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.043	0.0020		mg/L	1	9/12/2012 7:31:20 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:31:20 PM
Calcium	13	1.0		mg/L	1	9/12/2012 7:31:20 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:31:20 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:31:20 PM
Iron	0.064	0.020		mg/L	1	9/12/2012 7:31:20 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:31:20 PM
Magnesium	3.2	1.0		mg/L	1	9/12/2012 7:31:20 PM
Manganese	0.16	0.0020	*	mg/L	1	9/12/2012 7:31:20 PM
Potassium	1.8	1.0		mg/L	1	9/12/2012 7:31:20 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:31:20 PM
Sodium	590	10		mg/L	10	9/13/2012 11:33:51 AM
Zinc	0.030	0.010		mg/L	1	9/12/2012 7:31:20 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.044	0.0020		mg/L	1	9/10/2012 8:05:45 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:05:45 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:05:45 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:05:45 AM
Iron	0.12	0.020		mg/L	1	9/10/2012 8:05:45 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:05:45 AM
Manganese	0.16	0.0020	*	mg/L	1	9/10/2012 8:05:45 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:54:42 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 8:05:45 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	9/6/2012 2:56:42 PM
Selenium	0.0019	0.0010		mg/L	1	9/6/2012 2:56:42 PM
Uranium	0.014	0.0010		mg/L	1	9/6/2012 2:56:42 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
Uranium	0.013	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:00:00 AM

Lab ID: 1208B33-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:29:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Aniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Carbazole	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Chrysene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 9:20:43 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:00:00 AM

Lab ID: 1208B33-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Fluorene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Isophorone	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Phenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pyridine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Surr: 2,4,6-Tribromophenol	98.4	44.2-126		%REC	1	8/29/2012 9:20:43 PM
Surr: 2-Fluorobiphenyl	91.9	37-114		%REC	1	8/29/2012 9:20:43 PM
Surr: 2-Fluorophenol	63.4	23.4-98		%REC	1	8/29/2012 9:20:43 PM
Surr: 4-Terphenyl-d14	73.9	41.3-116		%REC	1	8/29/2012 9:20:43 PM
Surr: Nitrobenzene-d5	86.1	39.5-118		%REC	1	8/29/2012 9:20:43 PM
Surr: Phenol-d5	49.6	20.9-95.9		%REC	1	8/29/2012 9:20:43 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:00:00 AM

Lab ID: 1208B33-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:49:07 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:49:07 PM
Acetone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.
CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 10:00:00 AM

Lab ID: 1208B33-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:49:07 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: 4-Bromofluorobenzene	87.3	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: Dibromofluoromethane	86.5	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: Toluene-d8	83.1	70-130		%REC	1	8/31/2012 4:49:07 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:45:00 AM

Lab ID: 1208B33-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	2.0	0.50		mg/L	5	8/28/2012 2:32:55 AM
Chloride	41	10		mg/L	20	8/28/2012 2:45:20 AM
Bromide	ND	0.50		mg/L	5	8/28/2012 2:32:55 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/28/2012 2:32:55 AM
Sulfate	270	10		mg/L	20	8/28/2012 2:45:20 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:12:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.044	0.0020		mg/L	1	9/12/2012 7:39:11 PM
Cadmium	0.0056	0.0020	*	mg/L	1	9/12/2012 7:39:11 PM
Calcium	3.3	1.0		mg/L	1	9/12/2012 7:39:11 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:39:11 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:39:11 PM
Iron	3.0	0.10	*	mg/L	5	9/12/2012 7:43:02 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:39:11 PM
Magnesium	1.5	1.0		mg/L	1	9/12/2012 7:39:11 PM
Manganese	0.049	0.0020		mg/L	1	9/12/2012 7:39:11 PM
Potassium	1.8	1.0		mg/L	1	9/12/2012 7:39:11 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:39:11 PM
Sodium	320	5.0		mg/L	5	9/12/2012 7:43:02 PM
Zinc	0.014	0.010		mg/L	1	9/12/2012 7:39:11 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.086	0.0020		mg/L	1	9/10/2012 8:26:29 AM
Cadmium	0.013	0.0020	*	mg/L	1	9/10/2012 8:26:29 AM
Chromium	0.013	0.0060		mg/L	1	9/10/2012 8:26:29 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:26:29 AM
Iron	2.9	0.10	*	mg/L	5	9/10/2012 8:30:53 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:26:29 AM
Manganese	0.12	0.0020	*	mg/L	1	9/10/2012 8:26:29 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:11:47 AM
Zinc	0.025	0.010		mg/L	1	9/10/2012 8:26:29 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/6/2012 3:00:38 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 3:00:38 PM
Uranium	0.0048	0.0010		mg/L	1	9/6/2012 3:00:38 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
Uranium	0.0047	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:45:00 AM

Lab ID: 1208B33-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:31:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Aniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Carbazole	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Chrysene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 9:50:33 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:45:00 AM

Lab ID: 1208B33-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Fluorene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Isophorone	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Phenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pyridine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Surr: 2,4,6-Tribromophenol	99.8	44.2-126		%REC	1	8/29/2012 9:50:33 PM
Surr: 2-Fluorobiphenyl	89.6	37-114		%REC	1	8/29/2012 9:50:33 PM
Surr: 2-Fluorophenol	66.2	23.4-98		%REC	1	8/29/2012 9:50:33 PM
Surr: 4-Terphenyl-d14	73.6	41.3-116		%REC	1	8/29/2012 9:50:33 PM
Surr: Nitrobenzene-d5	87.5	39.5-118		%REC	1	8/29/2012 9:50:33 PM
Surr: Phenol-d5	50.6	20.9-95.9		%REC	1	8/29/2012 9:50:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 9:45:00 AM

Lab ID: 1208B33-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:16:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:16:53 PM
Acetone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 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.

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** BW-2C
Project: 3rd QTR 2012 Groundwater Sampling **Collection Date:** 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 5:16:53 PM
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: Toluene-d8	85.2	70-130		%REC	1	8/31/2012 5:16:53 PM

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
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:45:00 PM

Lab ID: 1208B33-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	1.2	0.10		mg/L	1	8/28/2012 3:22:35 AM
Chloride	33	2.5		mg/L	5	9/5/2012 7:04:05 PM
Bromide	0.39	0.10		mg/L	1	8/28/2012 3:22:35 AM
Phosphorus, Orthophosphate (As P)	0.82	0.50	H	mg/L	1	8/28/2012 3:22:35 AM
Sulfate	46	10		mg/L	20	8/28/2012 3:35:00 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:25:16 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.091	0.0020		mg/L	1	9/12/2012 7:46:40 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:46:40 PM
Calcium	8.6	1.0		mg/L	1	9/12/2012 7:46:40 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:46:40 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:46:40 PM
Iron	0.11	0.020		mg/L	1	9/12/2012 7:46:40 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:46:40 PM
Magnesium	2.7	1.0		mg/L	1	9/12/2012 7:46:40 PM
Manganese	0.11	0.0020	*	mg/L	1	9/12/2012 7:46:40 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 7:46:40 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:46:40 PM
Sodium	400	5.0		mg/L	5	9/12/2012 7:50:38 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 7:46:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.22	0.0020		mg/L	1	9/10/2012 8:44:51 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:44:51 AM
Chromium	0.010	0.0060		mg/L	1	9/10/2012 8:44:51 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:44:51 AM
Iron	3.6	0.10	*	mg/L	5	9/10/2012 8:47:40 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:44:51 AM
Manganese	0.22	0.0020	*	mg/L	1	9/10/2012 8:44:51 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:14:56 AM
Zinc	0.014	0.010		mg/L	1	9/10/2012 8:44:51 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0049	0.0010		mg/L	1	9/6/2012 3:12:29 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 3:12:29 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:12:29 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0044	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:45:00 PM

Lab ID: 1208B33-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:36:57 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Aniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Carbazole	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Chrysene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 10:38:57 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:45:00 PM

Lab ID: 1208B33-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Fluorene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Isophorone	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Naphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Phenanthrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Phenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pyridine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Surr: 2,4,6-Tribromophenol	82.4	44.2-126		%REC	1	8/31/2012 10:38:57 AM
Surr: 2-Fluorobiphenyl	66.3	37-114		%REC	1	8/31/2012 10:38:57 AM
Surr: 2-Fluorophenol	46.3	23.4-98		%REC	1	8/31/2012 10:38:57 AM
Surr: 4-Terphenyl-d14	60.3	41.3-116		%REC	1	8/31/2012 10:38:57 AM
Surr: Nitrobenzene-d5	65.5	39.5-118		%REC	1	8/31/2012 10:38:57 AM
Surr: Phenol-d5	41.0	20.9-95.9		%REC	1	8/31/2012 10:38:57 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 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

Analytical Report

Lab Order 1208B33

Date Reported: 9/21/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:45:00 PM

Lab ID: 1208B33-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:44:34 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:44:34 PM
Acetone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** BW-3B**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/23/2012 5:45:00 PM**Lab ID:** 1208B33-005**Matrix:** AQUEOUS**Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 5:44:34 PM
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: Toluene-d8	82.0	70-130		%REC	1	8/31/2012 5:44:34 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:40:00 PM

Lab ID: 1208B33-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	1.1	0.10		mg/L	1	8/28/2012 3:47:24 AM
Chloride	38	2.5		mg/L	5	9/8/2012 2:22:23 AM
Bromide	0.11	0.10		mg/L	1	8/28/2012 3:47:24 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 3:47:24 AM
Sulfate	310	10		mg/L	20	8/28/2012 3:59:50 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:37:41 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.035	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Calcium	3.9	1.0		mg/L	1	9/12/2012 7:54:30 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:54:30 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:54:30 PM
Iron	0.031	0.020		mg/L	1	9/12/2012 7:54:30 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:54:30 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 7:54:30 PM
Manganese	0.017	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Potassium	1.6	1.0		mg/L	1	9/12/2012 7:54:30 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:54:30 PM
Sodium	390	5.0		mg/L	5	9/12/2012 8:00:08 PM
Zinc	0.012	0.010		mg/L	1	9/12/2012 7:54:30 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.043	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:50:28 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:50:28 AM
Iron	0.34	0.020	*	mg/L	1	9/10/2012 8:50:28 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:50:28 AM
Manganese	0.022	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:18:22 AM
Zinc	0.012	0.010		mg/L	1	9/10/2012 8:50:28 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0022	0.0010		mg/L	1	9/6/2012 3:16:25 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 3:16:25 PM
Uranium	0.0014	0.0010		mg/L	1	9/6/2012 3:16:25 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
EPA METHOD 245.1: MERCURY						Analyst: TES

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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:40:00 PM

Lab ID: 1208B33-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:38:44 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Aniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Carbazole	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Chrysene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 11:08:20 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:40:00 PM

Lab ID: 1208B33-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Fluorene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Isophorone	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Naphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Phenanthrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Phenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pyridine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Surr: 2,4,6-Tribromophenol	78.4	44.2-126		%REC	1	8/31/2012 11:08:20 AM
Surr: 2-Fluorobiphenyl	55.2	37-114		%REC	1	8/31/2012 11:08:20 AM
Surr: 2-Fluorophenol	37.1	23.4-98		%REC	1	8/31/2012 11:08:20 AM
Surr: 4-Terphenyl-d14	54.6	41.3-116		%REC	1	8/31/2012 11:08:20 AM
Surr: Nitrobenzene-d5	44.8	39.5-118		%REC	1	8/31/2012 11:08:20 AM
Surr: Phenol-d5	32.7	20.9-95.9		%REC	1	8/31/2012 11:08:20 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:40:00 PM

Lab ID: 1208B33-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:12:15 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:12:15 PM
Acetone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 5:40:00 PM

Lab ID: 1208B33-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 6:12:15 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: 4-Bromofluorobenzene	84.0	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: Dibromofluoromethane	84.3	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: Toluene-d8	82.0	70-130		%REC	1	8/31/2012 6:12:15 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 11:30:00 AM

Lab ID: 1208B33-007

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:39:56 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:39:56 PM
Acetone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 6:39:56 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/24/2012 11:30:00 AM**Lab ID:** 1208B33-007**Matrix:** AQUEOUS**Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 6:39:56 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: Dibromofluoromethane	84.4	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: Toluene-d8	83.2	70-130		%REC	1	8/31/2012 6:39:56 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1208B33-008

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:07:35 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:07:35 PM
Acetone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 7:07:35 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 1208B33

Date Reported: 9/21/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** Trip Blank**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:****Lab ID:** 1208B33-008**Matrix:** AQUEOUS**Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 7:07:35 PM
Surr: 1,2-Dichloroethane-d4	82.8	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: 4-Bromofluorobenzene	84.4	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: Dibromofluoromethane	82.8	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: Toluene-d8	84.3	70-130		%REC	1	8/31/2012 7:07:35 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R5512		RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012		SeqNo:	157472	Units:	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals						
Client ID:	LCSW	Batch ID:	R5512	RunNo:	5512						
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157473	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		50	1.0	50.00	0	101	85	115			

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#: 1208B33

21-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	155926	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	155927	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			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156329	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156329	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID	1208996-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156330	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156332	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID	1208996-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156333	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	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#: 1208B33

21-Sep-12

ent: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156417	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156418	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156420	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156420	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID	1208A83-002AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156421	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156423	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID	1208A83-002AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156424	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208C13-006AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5512	RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157513	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	61	1.0	50.00	10.91	99.6	70	130			

Sample ID	1208C13-006AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5512	RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157514	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	62	1.0	50.00	10.91	102	70	130	1.97	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5512	RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157572	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5512	RunNo:	5512					
Date:		Analysis Date:	9/13/2012	SeqNo:	157573	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0.04813	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5512	RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157633	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5512	RunNo:	5512					
Prep Date:		Analysis Date:	9/13/2012	SeqNo:	157634	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3526		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	3526		RunNo:	5404				
Prep Date:	8/29/2012		Analysis Date:	9/10/2012		SeqNo:	154029		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Copper	ND	0.0060									
Iron	ND	0.020									
Lead	ND	0.0050									
Manganese	ND	0.0020									
Zinc	ND	0.010									

Sample ID	LCS-3526		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 3526		RunNo: 5404					
Prep Date:	8/29/2012		Analysis Date: 9/10/2012		SeqNo: 154030		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Lead	0.49	0.0050	0.5000	0	98.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.1	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID	1208B33-003EMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW-2B		Batch ID: 3526		RunNo: 5404					
Prep Date:	8/29/2012		Analysis Date: 9/10/2012		SeqNo: 154057		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04450	106	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			
Iron	0.66	0.020	0.5000	0.1192	108	70	130			
Lead	0.52	0.0050	0.5000	0	105	70	130			
Manganese	0.68	0.0020	0.5000	0.1610	104	70	130			
Zinc	0.53	0.010	0.5000	0.001530	106	70	130			

Sample ID	1208B33-003EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	BW-2B		Batch ID:	3526		RunNo:	5404				
Prep Date:	8/29/2012		Analysis Date:	9/10/2012		SeqNo:	154058		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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B33-003EMSD	SampType:	MSD	TestCode: EPA Method 200.7: Total Metals						
Client ID:	BW-2B	Batch ID:	3526	RunNo: 5404						
Prep Date:	8/29/2012	Analysis Date:	9/10/2012	SeqNo:	154058	Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.04450	104	70	130	1.69	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	1.27	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	1.19	20	
Copper	0.56	0.0060	0.5000	0	112	70	130	1.83	20	
Iron	0.65	0.020	0.5000	0.1192	105	70	130	2.21	20	
Lead	0.52	0.0050	0.5000	0	103	70	130	1.18	20	
Manganese	0.67	0.0020	0.5000	0.1610	101	70	130	2.31	20	
Zinc	0.53	0.010	0.5000	0.001530	105	70	130	1.02	20	

Sample ID	MB-3526	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	3526	RunNo:	5435					
Prep Date:	8/29/2012	Analysis Date:	9/11/2012	SeqNo:	155084	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS-3526		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	3526		RunNo:	5435				
Date:	8/29/2012		Analysis Date:	9/11/2012		SeqNo:	155085		Units:		mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.097	0.0050	0.1000	0	96.8	85	115				

Sample ID	1208B33-003EMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BW-2B	Batch ID:	3526	RunNo:	5435					
Prep Date:	8/29/2012	Analysis Date:	9/11/2012	SeqNo:	155112	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.065	0.0050	0.1000	0	64.6	70	130			S

Sample ID	1208B33-003EMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BW-2B		Batch ID:	3526		RunNo:	5435				
Prep Date:	8/29/2012		Analysis Date:	9/11/2012		SeqNo:	155113		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.069	0.0050	0.1000	0	69.3	70	130	6.99	20	S	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3526	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	3526	RunNo:	5235					
Prep Date:	8/29/2012	Analysis Date:	8/30/2012	SeqNo:	148847	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	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#: 1208B33

21-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208476-008EMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5350		RunNo:	5350				
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152349		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.029	0.0010	0.02500	0	117	70	130				

Sample ID	1208654-002AMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R5350		RunNo:	5350			
Prep Date:				Analysis Date:	9/6/2012		SeqNo:	152351		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130				

Sample ID	1208944-008AMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5350		RunNo:	5350				
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152364		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130				
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130				
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130				

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Lot ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152381	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID	1208B35-001DMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5350		RunNo:	5350				
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152398		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130				
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130				
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130				

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152416	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID:	R5350		RunNo:	5350				
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152416		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	0.025	0.0010	0.02500	0	101	85	115				
Uranium	0.026	0.0010	0.02500	0	104	85	115				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152417		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152420	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R5350		RunNo:	5350				
Prep Date:		Analysis Date:	9/6/2012		SeqNo:	152421	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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#: 1208B33

21-Sep-12

nt: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3526	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	3526	RunNo:	5235					
Prep Date:	8/29/2012	Analysis Date:	8/30/2012	SeqNo:	148880	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3672	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-3672	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	1208B33-004EMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BW-2C	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155059	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID	1208B33-004EMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BW-2C	Batch ID:	3672	RunNo:	5432					
Prep Date:	9/10/2012	Analysis Date:	9/11/2012	SeqNo:	155060	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

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#: 1208B33

21-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R5147		RunNo: 5147							
Prep Date:	Analysis Date: 8/27/2012		SeqNo: 146216		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								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R5147		RunNo: 5147							
Prep Date:	Analysis Date: 8/27/2012		SeqNo: 146217		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID 1208B32-001CMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R5147		RunNo: 5147							
Prep Date:	Analysis Date: 8/27/2012		SeqNo: 146223		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID 1208B32-001CMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R5147		RunNo: 5147							
Prep Date:	Analysis Date: 8/27/2012		SeqNo: 146224		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID 1208B37-001BMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R5147		RunNo: 5147							
Prep Date:	Analysis Date: 8/27/2012		SeqNo: 146231		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B37-001BMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:		R5147		RunNo:	5147			
Prep Date:				Analysis Date:	8/27/2012		SeqNo:	146232		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20		
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20		

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R5147			RunNo: 5147					
Prep Date:		Analysis Date: 8/28/2012			SeqNo: 146268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R5147			RunNo: 5147					
Prep Date:		Analysis Date: 8/28/2012			SeqNo: 146269		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID	1208B33-006CMS			SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BW-3C			Batch ID:	R5147		RunNo:	5147			
Prep Date:				Analysis Date:	8/28/2012		SeqNo:	146277		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110				
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107				

Sample ID	1208B33-006CMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BW-3C		Batch ID:	R5147		RunNo:	5147				
Prep Date:				Analysis Date:	8/28/2012		SeqNo:	146278		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20		
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5323	RunNo:	5323					
Prep Date:		Analysis Date:	9/5/2012	SeqNo:	151555	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:	R5323	RunNo:	5323					
Prep Date:		Analysis Date:	9/5/2012	SeqNo:	151556	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	96.7	90	110			

Sample ID	1209077-005AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5323	RunNo:	5323					
Prep Date:		Analysis Date:	9/5/2012	SeqNo:	151574	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	108	87.8	111			

Sample ID	1209077-005AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5323	RunNo:	5323					
Prep Date:		Analysis Date:	9/5/2012	SeqNo:	151575	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	107	87.8	111	0.305	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5394	RunNo:	5394					
Prep Date:		Analysis Date:	9/7/2012	SeqNo:	153780	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:	R5394	RunNo:	5394					
Prep Date:		Analysis Date:	9/7/2012	SeqNo:	153781	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	95.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5394	RunNo:	5394					
Prep Date:		Analysis Date:	9/7/2012	SeqNo:	153834	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R5394	RunNo:	5394					
Prep Date:		Analysis Date:	9/7/2012	SeqNo:	153835	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	93.7	90	110			

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#: 1208B33

21-Sep-12

nt: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	b3	SampType:	MBLK	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	PBW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150165	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								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260: Volatiles Short List					
it ID:	LCSW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150166	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R5276			RunNo: 5276					
Prep Date:		Analysis Date: 8/31/2012			SeqNo: 150096		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#: 1208B33

21-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150096	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								
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	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R5276			RunNo: 5276					
Prep Date:		Analysis Date: 8/31/2012			SeqNo: 150102		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150102	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

Sample ID	1208b33-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BW-1C	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150105	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID	1208b33-001a msd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BW-1C			Batch ID:	R5276		RunNo:	5276			
Prep Date:				Analysis Date:	8/31/2012		SeqNo:	150106		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7		
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7		
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5		
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7		
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5		
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0		
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0		
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0		
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0		

Sample ID	b3	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R5276		RunNo:	5276				
Prep Date:		Analysis Date:	8/31/2012		SeqNo:	150141	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								

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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	b3	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	150141	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID b3	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R5276		RunNo: 5276							
Prep Date:	Analysis Date: 8/31/2012		SeqNo: 150141		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R5276		RunNo: 5276							
Prep Date:	Analysis Date: 8/31/2012		SeqNo: 150143		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	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#: 1208B33

21-Sep-12

Location: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208b42-003a ms			SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC			Batch ID:	R5276		RunNo:	5276			
Prep Date:				Analysis Date:	9/1/2012		SeqNo:	150144		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	20	1.0	20.00	0	98.1	66.8	128				
Toluene	21	1.0	20.00	0	104	70	130				
Chlorobenzene	20	1.0	20.00	0	102	70	130				
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130				
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130				
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130				
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130				
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130				
Surr: Toluene-d8	8.7		10.00		87.0	70	130				

Sample ID	1208b42-003a msd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R5276		RunNo:	5276				
Prep Date:			Analysis Date:	9/1/2012		SeqNo:	150145		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7		
Toluene	19	1.0	20.00	0	93.1	70	130	11.3	18.7		
Chlorobenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5		
Chloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7		
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5		
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0		
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0		
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0		
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0		

Sample ID b7	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R5276			RunNo: 5276						
Prep Date:	Analysis Date: 9/1/2012			SeqNo: 150170		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								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID b7	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R5276		RunNo: 5276							
Prep Date:	Analysis Date: 9/1/2012		SeqNo: 150170		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
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								

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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	b7	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	9/1/2012	SeqNo:	150170	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID	100ng lcs3	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	9/1/2012	SeqNo:	150173	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID	1208c45-009a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	9/1/2012	SeqNo:	150176	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- ✓ 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208c45-009a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	9/1/2012	SeqNo:	150176	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

Sample ID	1208c45-009a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5276	RunNo:	5276					
Prep Date:		Analysis Date:	9/1/2012	SeqNo:	150177	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B33

21-Sep-12

ent: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	3504	RunNo:	5185					
Prep Date:	8/28/2012	Analysis Date:	8/29/2012	SeqNo:	147346	Units:	µg/L			
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								
zole	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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- 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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	3504	RunNo:	5185					
Prep Date:	8/28/2012	Analysis Date:	8/29/2012	SeqNo:	147346	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	20								
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		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

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#: 1208B33

21-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	lcs-3504		SampType:	LCS		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSW		Batch ID:	3504		RunNo:	5185			
Prep Date:	8/28/2012		Analysis Date:	8/29/2012		SeqNo:	147347		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID	lcsd-3504		SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02		Batch ID:	3504		RunNo:	5185			
Prep Date:	8/28/2012		Analysis Date:	8/29/2012		SeqNo:	147348		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	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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: 1208B33
Received by/date: <u>CM 08/24/12</u>		
Logged By: Anne Thorne	8/24/2012 3:40:00 PM	<i>Am Th</i>
Completed By: Anne Thorne	8/27/2012	<i>Am Th</i>
Reviewed By: <u>[Signature]</u> <u>08/27/12</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 $>0^{\circ}\text{C}$ 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 ☐
Added 1mL HNO₃ to -003E for acceptable pH
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: 18
(52 or >12 unless noted)

Adjusted? YES

Checked by: [Signature]

Special Handling (If applicable)

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

Person Notified:	<u>[Signature]</u>	Date:	<u>08/27/12</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

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

Turn-Around Time:

☐ Standard ☐ Rush

Project Name:

3rd QTR 2012 Groundwater

Mailing Address:

Rt 3 Box 7

Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Project Manager:

Cheryl Johnson

Date Time Matrix

Sample Request ID

Preservative Type

HEAL No.

1208B33

BW-1A

BW-1B

BW-1C

BW-2A

BW-2B

BW-2C

BW-3A

BW-3B

BW-3C

Field Blank

Trip Blank

Date Time Relinquished by:

8/24/12 1540

Date Time Relinquished by:

8/24/12 1540

Received by:

8/24/12 1540

Received by:

8/24/12 1540

Remarks:

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

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

WCOC Metals (Total and Dissolved)

Air Bubbles (Y or N)