

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

| | |
|---|---------------------------------|
| Name of Company: BP | Contact: Steve Moskal |
| Address: 200 Energy Court, Farmington, NM 87401 | Telephone No.: 505-326-9497 |
| Facility Name: Federal Gas Com N 001 | Facility Type: Natural Gas well |

| | | |
|------------------------|------------------------|--------------------|
| Surface Owner: Federal | Mineral Owner: Federal | API No. 3004525544 |
|------------------------|------------------------|--------------------|

LOCATION OF RELEASE

| | | | | | | | | |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|------------------|
| Unit Letter B | Section 14 | Township 30N | Range 11W | Feet from the 1,090 | North/South Line North | Feet from the 1,640 | East/West Line East | County: San Juan |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|------------------|

Latitude 36.81646° Longitude -107.95708°

NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Oil/condensate | Volume of Release: unknown | Volume Recovered: none |
| Source of Release: Failed integrity of production tank flow line | Date and Hour of Occurrence: Unknown | Date and Hour of Discovery: Confirmed September October 4, 2016; 9:00 AM |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| By Whom? Steve Moskal | Date and Hour: | OIL CONS. DIV DIST. 3 |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. DEC 02 2016 | |

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* While removing a production tank for replacement, stained soil was noted. Investigation revealed the tank had an integrity failure of a flow line that likely occurred during the tank move. The tank release was remediated via dig and haul following the spill and release guidelines.

Describe Area Affected and Cleanup Action Taken.* The release was contained to the secondary containment and has appeared to have travelled vertically through the soil, reaching a depth of approximately 16' with little lateral movement. Total excavation dimensions measured approximately 18'x18'x16' deep. The total volume excavated was approximately 192 cubic yards of soil. Clean soil was used to backfill the excavation. Attached are laboratory results of the field report.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|--|--|-----------------------------------|
| Signature:  | OIL CONSERVATION DIVISION | |
| Printed Name: Steve Moskal | Approved by Environmental Specialist  | |
| Title: Field Environmental Coordinator | Approval Date: <u>12/27/2016</u> | Expiration Date: |
| E-mail Address: steven.moskal@bp.com | Conditions of Approval: <u>NCS 11630028823</u> | Attached <input type="checkbox"/> |
| Date: November 21, 2016 | Phone: 505-326-9497 | |

* Attach Additional Sheets If Necessary

BP America
Federal GC N 1
(B) Sec 14 – T30N – R11W
San Juan County, New Mexico
API: 30-045-25544

Summary Record of Impact Remediation

September 29, 2016 During replacement of a 300 bbl condensate stock tank a sub-grade fiberglass connection at the tank was observed to have a potential integrity issue. Since no state required One-Call was in place, investigation of potential hydrocarbon impacts to soil could not be conducted.

October 4, 2016 An investigation of potential impacts was conducted with a backhoe to dig a test-hole at the immediate location where the fiberglass connection failed, next to the 300 bbl tank. The test hole was advanced to a total depth of 14' below surface grade (bsg) and samples were collected for field and laboratory testing, with results as follows:

Investigation Test Results
October 4, 2016

| Sample ID | Date/Time | Field OVM | TPH 8015B GRO (mg/Kg) | TPH 8015B DRO (mg/Kg) | TPH 8015B MRO (mg/Kg) | TPH Total (mg/Kg) | BTEX Total (mg/Kg) | Chloride (mg/Kg) |
|------------|--------------------|-----------|-----------------------|-----------------------|-----------------------|-------------------|--------------------|------------------|
| TH-A @ 7' | 10/04/2016 @ 14:54 | 3,215 | 9,400 | 4,100 | ND | 13,500 | 216.2 | ND |
| TH-A @ 11' | 10/04/2016 @ 09:40 | 2,005 | 4,400 | 2,300 | ND | 6,700 | 67.2 | ND |
| TH-A @ 14' | 10/04/2016 @ 14:30 | 1.0 | ND | ND | ND | ND | ND | ND |

Site closure standard was determined at 100 ppm TPH based on:

- Horizontal distance to dry arroyo = 330 feet (10 points)
- Nearest water well > 1,000 feet (0 points)
- Depth to groundwater based on site BGT permit > 50 feet (10 points)

The estimated total impact exceeding standards was estimated at 15' x 15' x 14' deep. Potential volume of fluid lost could not be determined.

October 20, 2016 Site remediation was conducted using an excavator to remove hydrocarbon impacts at the source area in a final dimension of 18' x 18' x 16' deep. Approximate volume of soils removed was 192 CY.

NMOCD observed closure sampling of the base and sidewall of the remedial excavation with final test results as follows:

Closure Sampling Test Results
October 20, 2016

| Sample ID | Date/Time | Field OVM | TPH 8015B GRO (mg/Kg) | TPH 8015B DRO (mg/Kg) | TPH 8015B MRO (mg/Kg) | TPH Total (mg/Kg) | BTEX Total (mg/Kg) | Chloride (mg/Kg) |
|----------------------------|--------------------|-----------|-----------------------|-----------------------|-----------------------|-------------------|--------------------|------------------|
| West Wall 3-pt (5' - 14") | 10/20/2016 @ 14:12 | 2.0 | ND | ND | ND | ND | ND | ND |
| North Wall 3-pt (5' - 14") | 10/20/2016 @ 14:15 | 2.0 | ND | ND | ND | ND | ND | ND |
| East Wall 3-pt (5' - 14") | 10/20/2016 @ 14:20 | 2.5 | ND | ND | ND | ND | ND | ND |
| South Wall 3-pt (5' - 14") | 10/20/2016 @ 14:22 | 1.3 | ND | ND | ND | ND | ND | 38 |
| Base 5-pt @ 16' | 10/20/2016 @ 14:25 | 4.7 | ND | ND | ND | ND | ND | ND |

October 21, 2016 Excavation crew completes backfilling operation.

Federal GC N 1
October 4, 2016
(Investigation)



300 Tank

21 BGT

Estimated Impact
15' x 15' x 14' Deep

95 BGT

Separator

A

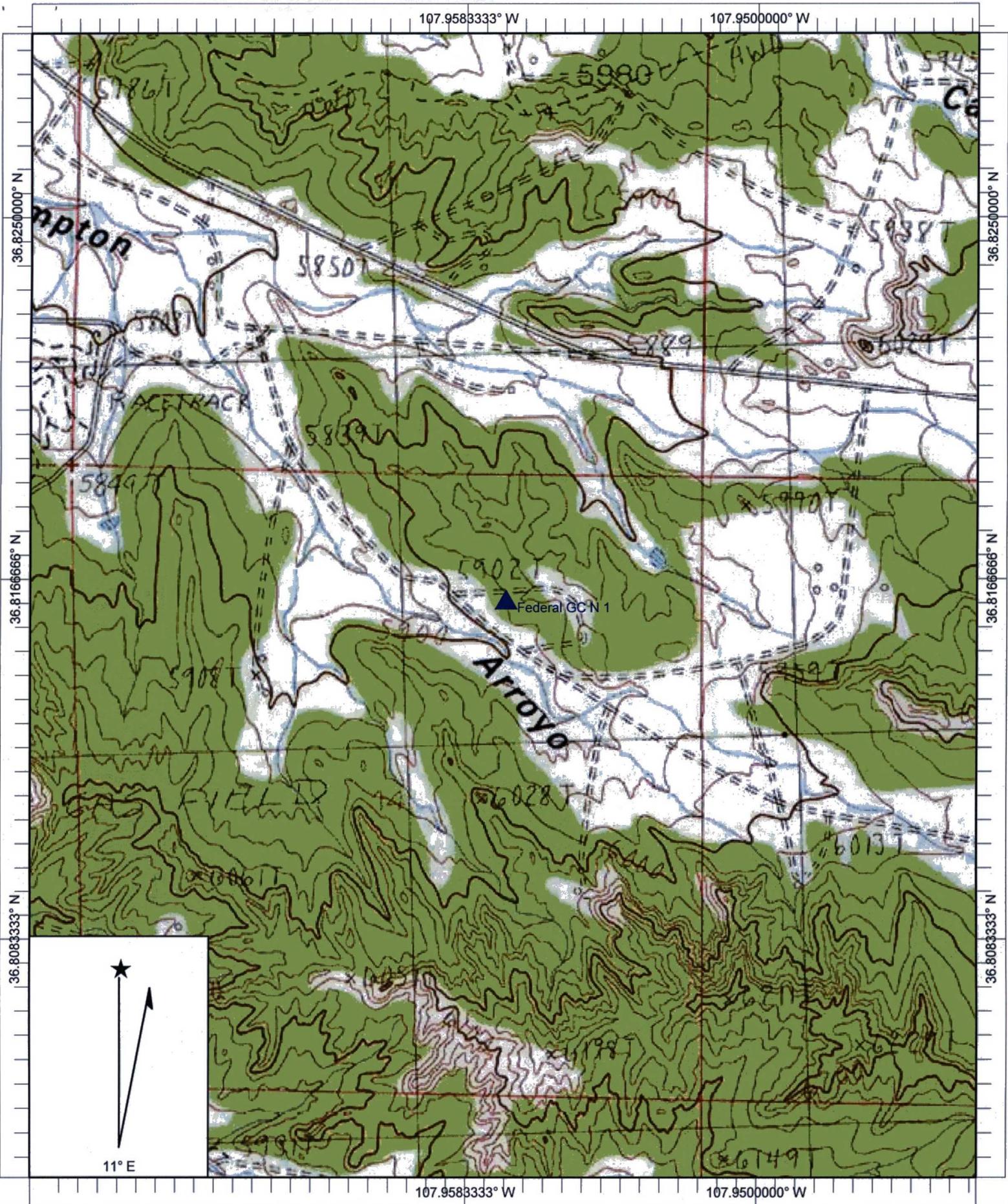
2-Inch Fiberglass Load Line

Test Hole A
@ Source
of Pipe Leak
@ Fiberglass Connection
OVM @ 7' = 3,215 ppm
OVM @ 11' = 2,005 ppm
OVM @ 14' = 1.0 ppm

Estimated Site Closure Standard:

- Depth to Water = 50' - 100' (10 Points)
- Distance to Wash = 330' (10 Points)
- Distance to Water Well > 1,000' (0 Points)
- NMOCD/BLM Standard = 100 ppm TPH

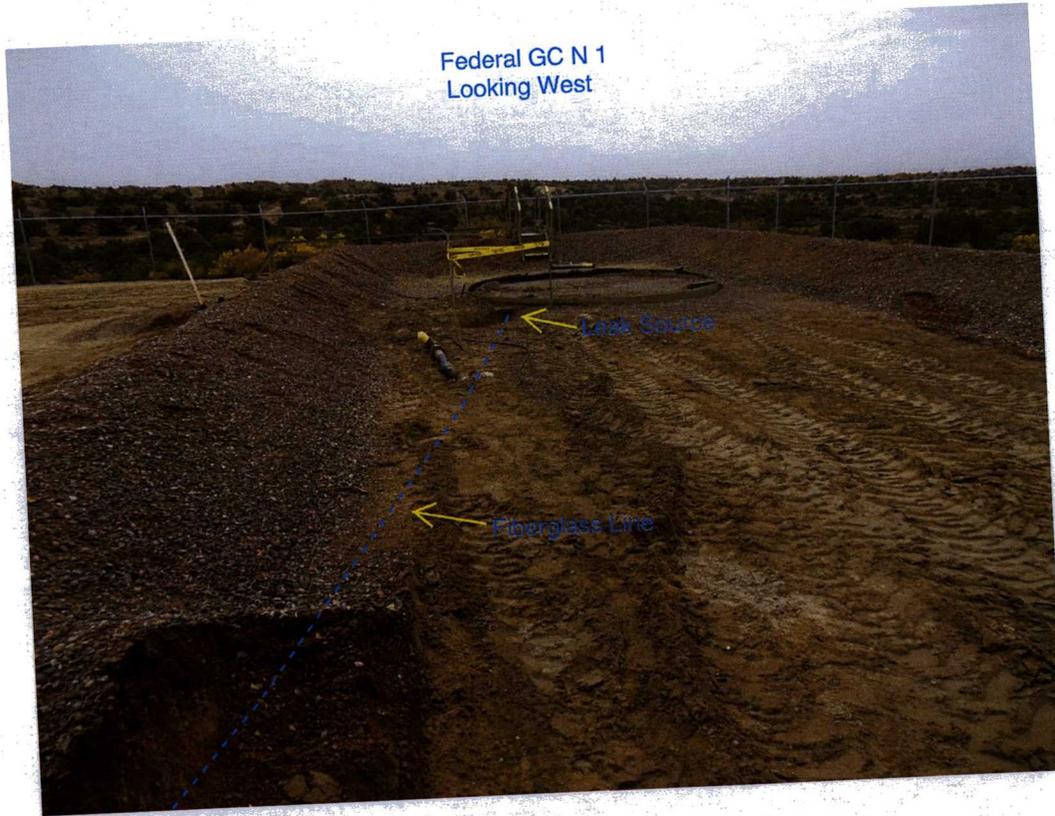




Name: AZTEC
Date: 10/5/2016
Scale: 1 inch equals 1000 feet

Caption: BP - Federal GC N 1
36.81619 x 107.95715

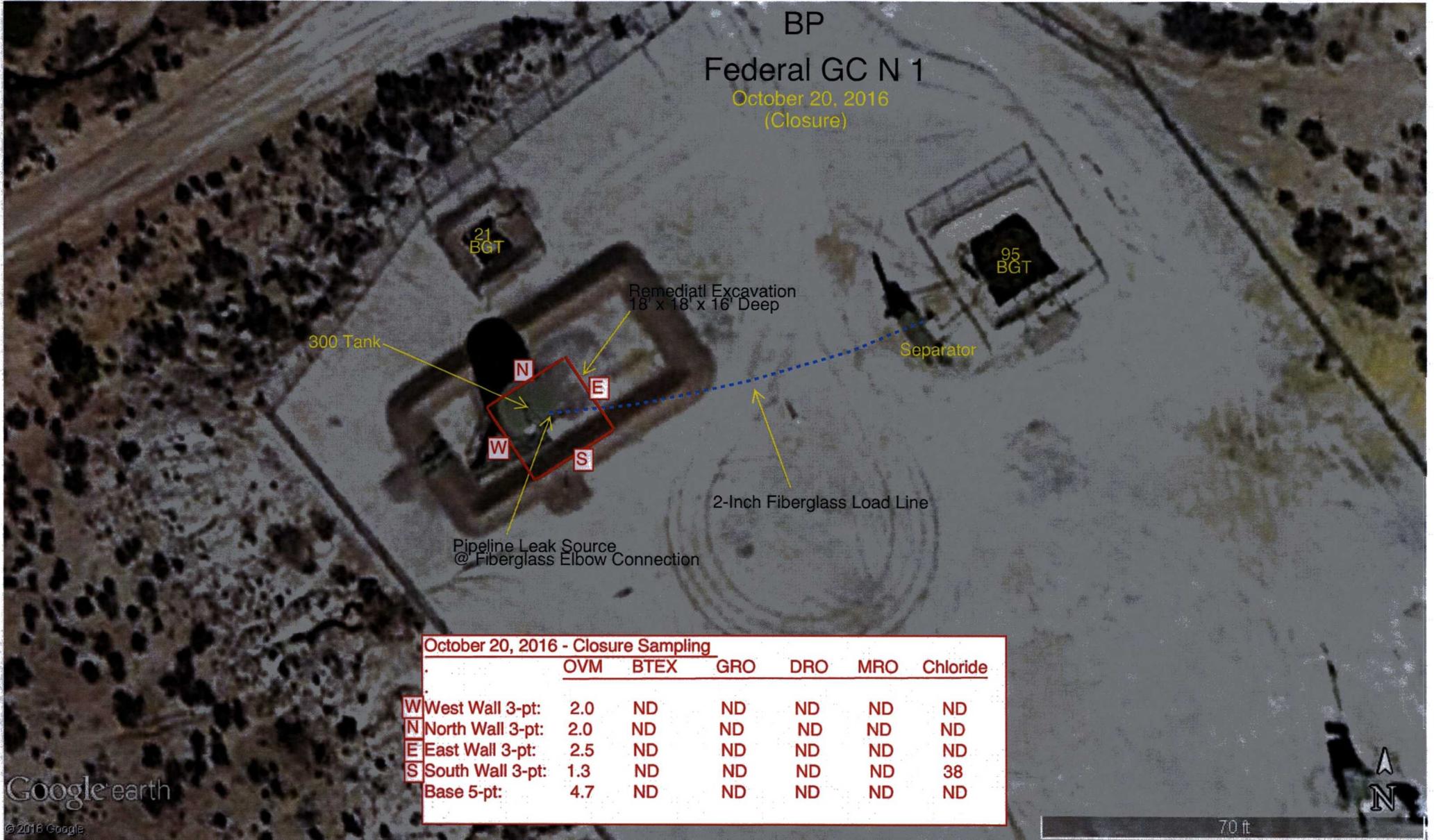
Federal GC N 1
Looking West



BP

Federal GC N 1

October 20, 2016
(Closure)



| October 20, 2016 - Closure Sampling | | | | | | |
|-------------------------------------|-----|------|-----|-----|-----|----------|
| | OVM | BTEX | GRO | DRO | MRO | Chloride |
| W West Wall 3-pt: | 2.0 | ND | ND | ND | ND | ND |
| N North Wall 3-pt: | 2.0 | ND | ND | ND | ND | ND |
| E East Wall 3-pt: | 2.5 | ND | ND | ND | ND | ND |
| S South Wall 3-pt: | 1.3 | ND | ND | ND | ND | 38 |
| Base 5-pt: | 4.7 | ND | ND | ND | ND | ND |





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

October 26, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL:
FAX

RE: Federal GC N 1

OrderNo.: 1610A31

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/21/2016 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1610A31

Date Reported: 10/26/2016

CLIENT: Blagg Engineering

Client Sample ID: West Wall 3-pt (5'-14')

Project: Federal GC N 1

Collection Date: 10/20/2016 2:12:00 PM

Lab ID: 1610A31-001

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: LGT |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/21/2016 10:38:21 AM | 28232 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | ND | 9.8 | | mg/Kg | 1 | 10/21/2016 10:00:22 AM | 28209 |
| Motor Oil Range Organics (MRO) | ND | 49 | | mg/Kg | 1 | 10/21/2016 10:00:22 AM | 28209 |
| Surr: DNOP | 97.1 | 70-130 | | %Rec | 1 | 10/21/2016 10:00:22 AM | 28209 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.8 | | mg/Kg | 1 | 10/21/2016 10:56:43 AM | G38127 |
| Surr: BFB | 90.2 | 68.3-144 | | %Rec | 1 | 10/21/2016 10:56:43 AM | G38127 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.019 | | mg/Kg | 1 | 10/21/2016 10:56:43 AM | B38127 |
| Toluene | ND | 0.038 | | mg/Kg | 1 | 10/21/2016 10:56:43 AM | B38127 |
| Ethylbenzene | ND | 0.038 | | mg/Kg | 1 | 10/21/2016 10:56:43 AM | B38127 |
| Xylenes, Total | ND | 0.076 | | mg/Kg | 1 | 10/21/2016 10:56:43 AM | B38127 |
| Surr: 4-Bromofluorobenzene | 107 | 80-120 | | %Rec | 1 | 10/21/2016 10:56:43 AM | B38127 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| Qualifiers: | | |
|-------------|---|---|
| * | Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E Value above quantitation range |
| H | Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R | RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1610A31

Date Reported: 10/26/2016

CLIENT: Blagg Engineering

Client Sample ID: North Wall 3-pt (5'-14')

Project: Federal GC N 1

Collection Date: 10/20/2016 2:15:00 PM

Lab ID: 1610A31-002

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------|
| EPA METHOD 300.0: ANIONS | | | | | | | |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/21/2016 10:50:46 AM | 28232 |
| Analyst: LGT | | | | | | | |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | |
| Diesel Range Organics (DRO) | ND | 9.2 | | mg/Kg | 1 | 10/21/2016 10:21:54 AM | 28209 |
| Motor Oil Range Organics (MRO) | ND | 46 | | mg/Kg | 1 | 10/21/2016 10:21:54 AM | 28209 |
| Surr: DNOP | 89.6 | 70-130 | | %Rec | 1 | 10/21/2016 10:21:54 AM | 28209 |
| Analyst: TOM | | | | | | | |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | |
| Gasoline Range Organics (GRO) | ND | 4.3 | | mg/Kg | 1 | 10/21/2016 11:21:00 AM | G38127 |
| Surr: BFB | 90.7 | 68.3-144 | | %Rec | 1 | 10/21/2016 11:21:00 AM | G38127 |
| Analyst: NSB | | | | | | | |
| EPA METHOD 8021B: VOLATILES | | | | | | | |
| Benzene | ND | 0.022 | | mg/Kg | 1 | 10/21/2016 11:21:00 AM | B38127 |
| Toluene | ND | 0.043 | | mg/Kg | 1 | 10/21/2016 11:21:00 AM | B38127 |
| Ethylbenzene | ND | 0.043 | | mg/Kg | 1 | 10/21/2016 11:21:00 AM | B38127 |
| Xylenes, Total | ND | 0.086 | | mg/Kg | 1 | 10/21/2016 11:21:00 AM | B38127 |
| Surr: 4-Bromofluorobenzene | 106 | 80-120 | | %Rec | 1 | 10/21/2016 11:21:00 AM | B38127 |
| Analyst: NSB | | | | | | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| Qualifiers: | | | |
|-------------|---|----|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

Analytical Report

Lab Order 1610A31

Date Reported: 10/26/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: East Wall 3-pt (5'-14')

Project: Federal GC N 1

Collection Date: 10/20/2016 2:20:00 PM

Lab ID: 1610A31-003

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | |
| | | | | | | | Analyst: LGT |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/21/2016 11:03:11 AM | 28232 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | |
| | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | ND | 9.5 | | mg/Kg | 1 | 10/21/2016 10:43:36 AM | 28209 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 10/21/2016 10:43:36 AM | 28209 |
| Surr: DNOP | 92.4 | 70-130 | | %Rec | 1 | 10/21/2016 10:43:36 AM | 28209 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | |
| | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.1 | | mg/Kg | 1 | 10/21/2016 11:45:18 AM | G38127 |
| Surr: BFB | 91.6 | 68.3-144 | | %Rec | 1 | 10/21/2016 11:45:18 AM | G38127 |
| EPA METHOD 8021B: VOLATILES | | | | | | | |
| | | | | | | | Analyst: NSB |
| Benzene | ND | 0.020 | | mg/Kg | 1 | 10/21/2016 11:45:18 AM | B38127 |
| Toluene | ND | 0.041 | | mg/Kg | 1 | 10/21/2016 11:45:18 AM | B38127 |
| Ethylbenzene | ND | 0.041 | | mg/Kg | 1 | 10/21/2016 11:45:18 AM | B38127 |
| Xylenes, Total | ND | 0.082 | | mg/Kg | 1 | 10/21/2016 11:45:18 AM | B38127 |
| Surr: 4-Bromofluorobenzene | 110 | 80-120 | | %Rec | 1 | 10/21/2016 11:45:18 AM | B38127 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1610A31
 Date Reported: 10/26/2016

CLIENT: Blagg Engineering
Project: Federal GC N 1
Lab ID: 1610A31-005

Client Sample ID: Base 5-pt @16'
Collection Date: 10/20/2016 2:25:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/21/2016 8:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: LGT |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/21/2016 11:28:00 AM | 28232 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 10/21/2016 11:21:19 AM | 28209 |
| Motor Oil Range Organics (MRO) | ND | 50 | | mg/Kg | 1 | 10/21/2016 11:21:19 AM | 28209 |
| Surr: DNOP | 103 | 70-130 | | %Rec | 1 | 10/21/2016 11:21:19 AM | 28209 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.2 | | mg/Kg | 1 | 10/21/2016 12:34:19 PM | G38127 |
| Surr: BFB | 84.8 | 68.3-144 | | %Rec | 1 | 10/21/2016 12:34:19 PM | G38127 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.021 | | mg/Kg | 1 | 10/21/2016 12:34:19 PM | B38127 |
| Toluene | ND | 0.042 | | mg/Kg | 1 | 10/21/2016 12:34:19 PM | B38127 |
| Ethylbenzene | ND | 0.042 | | mg/Kg | 1 | 10/21/2016 12:34:19 PM | B38127 |
| Xylenes, Total | ND | 0.084 | | mg/Kg | 1 | 10/21/2016 12:34:19 PM | B38127 |
| Surr: 4-Bromofluorobenzene | 98.4 | 80-120 | | %Rec | 1 | 10/21/2016 12:34:19 PM | B38127 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| Qualifiers: | | |
|-------------|---|---|
| * | Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E Value above quantitation range |
| H | Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R | RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A31

26-Oct-16

Client: Blagg Engineering

Project: Federal GC N 1

| | | | | | | | | | | |
|------------|------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID | MB-28232 | SampType: | MBLK | TestCode: | EPA Method 300.0: Anions | | | | | |
| Client ID: | PBS | Batch ID: | 28232 | RunNo: | 38151 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1190570 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| | | | | | | | | | | |
|------------|------------|----------------|------------|-------------|--------------------------|----------|-----------|------|----------|------|
| Sample ID | LCS-28232 | SampType: | LCS | TestCode: | EPA Method 300.0: Anions | | | | | |
| Client ID: | LCSS | Batch ID: | 28232 | RunNo: | 38151 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1190571 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 94.3 | 90 | 110 | | | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A31

26-Oct-16

Client: Blagg Engineering

Project: Federal GC N 1

| | | | | | | | | | | |
|-----------------------------|------------|----------------|------------|-------------|---|----------|-----------|------|----------|------|
| Sample ID | LCS-28209 | SampType: | LCS | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | Batch ID: | 28209 | RunNo: | 38116 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1189331 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 48 | 10 | 50.00 | 0 | 95.5 | 62.6 | 124 | | | |
| Surr: DNOP | 3.8 | | 5.000 | | 75.8 | 70 | 130 | | | |

| | | | | | | | | | | |
|--------------------------------|------------|----------------|------------|-------------|---|----------|-----------|------|----------|------|
| Sample ID | MB-28209 | SampType: | MBLK | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | PBS | Batch ID: | 28209 | RunNo: | 38116 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1189332 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 8.7 | | 10.00 | | 86.9 | 70 | 130 | | | |

| | | | | | | | | | | |
|-----------------------------|----------------------|----------------|------------|-------------|---|----------|-----------|------|----------|------|
| Sample ID | 1610A31-001AMS | SampType: | MS | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | West Wall 3-pt (5'-1 | Batch ID: | 28209 | RunNo: | 38116 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1189554 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 46 | 9.5 | 47.44 | 0 | 96.7 | 33.9 | 141 | | | |
| Surr: DNOP | 3.8 | | 4.744 | | 79.3 | 70 | 130 | | | |

| | | | | | | | | | | |
|-----------------------------|----------------------|----------------|------------|-------------|---|----------|-----------|------|----------|------|
| Sample ID | 1610A31-001AMSD | SampType: | MSD | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | West Wall 3-pt (5'-1 | Batch ID: | 28209 | RunNo: | 38116 | | | | | |
| Prep Date: | 10/21/2016 | Analysis Date: | 10/21/2016 | SeqNo: | 1189570 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 49 | 9.4 | 46.99 | 0 | 103 | 33.9 | 141 | 5.66 | 20 | |
| Surr: DNOP | 4.1 | | 4.699 | | 86.3 | 70 | 130 | 0 | 0 | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A31

26-Oct-16

Client: Blagg Engineering

Project: Federal GC N 1

| | | | | | | | | | | |
|-------------------------------|---------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | 5ML RB | SampType: | MBLK | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | PBS | Batch ID: | G38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190255 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 940 | | 1000 | | 93.7 | 68.3 | 144 | | | |

| | | | | | | | | | | |
|-------------------------------|----------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | 2.5UG GRO LCS | SampType: | LCS | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | Batch ID: | G38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190256 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24 | 5.0 | 25.00 | 0 | 98.0 | 74.6 | 123 | | | |
| Surr: BFB | 920 | | 1000 | | 92.5 | 68.3 | 144 | | | |

| | | | | | | | | | | |
|-------------------------------|------------------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | 1610A31-001AMS | SampType: | MS | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | West Wall 3-pt (5'-1) | Batch ID: | G38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190257 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 19 | 3.8 | 19.04 | 0 | 101 | 61.3 | 150 | | | |
| Surr: BFB | 700 | | 761.6 | | 91.5 | 68.3 | 144 | | | |

| | | | | | | | | | | |
|-------------------------------|------------------------------|----------------|-------------------|-------------|---|----------|--------------|-------|----------|------|
| Sample ID | 1610A31-001AMSD | SampType: | MSD | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | West Wall 3-pt (5'-1) | Batch ID: | G38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190258 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 19 | 3.8 | 19.04 | 0 | 101 | 61.3 | 150 | 0.119 | 20 | |
| Surr: BFB | 700 | | 761.6 | | 92.4 | 68.3 | 144 | 0 | 0 | |

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A31

26-Oct-16

Client: Blagg Engineering

Project: Federal GC N 1

| Sample ID | 5ML RB | SampType: | MBLK | TestCode: | EPA Method 8021B: Volatiles | | | | | |
|----------------------------|---------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID: | PBS | Batch ID: | B38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190261 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 115 | 80 | 120 | | | |

| Sample ID | 100NG BTEX LCS | SampType: | LCS | TestCode: | EPA Method 8021B: Volatiles | | | | | |
|----------------------------|-----------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID: | LCSS | Batch ID: | B38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190262 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.93 | 0.025 | 1.000 | 0 | 92.9 | 75.2 | 115 | | | |
| Toluene | 0.95 | 0.050 | 1.000 | 0 | 94.8 | 80.7 | 112 | | | |
| Ethylbenzene | 0.92 | 0.050 | 1.000 | 0 | 92.2 | 78.9 | 117 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 99.7 | 79.2 | 115 | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 102 | 80 | 120 | | | |

| Sample ID | 1610A31-002AMS | SampType: | MS | TestCode: | EPA Method 8021B: Volatiles | | | | | |
|----------------------------|------------------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID: | North Wall 3-pt (5'-1 | Batch ID: | B38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190263 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.83 | 0.022 | 0.8613 | 0 | 95.9 | 71.5 | 122 | | | |
| Toluene | 0.80 | 0.043 | 0.8613 | 0 | 93.0 | 71.2 | 123 | | | |
| Ethylbenzene | 0.79 | 0.043 | 0.8613 | 0 | 91.5 | 75.2 | 130 | | | |
| Xylenes, Total | 2.5 | 0.086 | 2.584 | 0 | 95.2 | 72.4 | 131 | | | |
| Surr: 4-Bromofluorobenzene | 0.87 | | 0.8613 | | 101 | 80 | 120 | | | |

| Sample ID | 1610A31-002AMSD | SampType: | MSD | TestCode: | EPA Method 8021B: Volatiles | | | | | |
|----------------------------|------------------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID: | North Wall 3-pt (5'-1 | Batch ID: | B38127 | RunNo: | 38127 | | | | | |
| Prep Date: | | Analysis Date: | 10/21/2016 | SeqNo: | 1190264 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.78 | 0.022 | 0.8613 | 0 | 90.7 | 71.5 | 122 | 5.52 | 20 | |
| Toluene | 0.74 | 0.043 | 0.8613 | 0 | 86.0 | 71.2 | 123 | 7.79 | 20 | |
| Ethylbenzene | 0.73 | 0.043 | 0.8613 | 0 | 84.8 | 75.2 | 130 | 7.65 | 20 | |
| Xylenes, Total | 2.3 | 0.086 | 2.584 | 0 | 90.3 | 72.4 | 131 | 5.27 | 20 | |
| Surr: 4-Bromofluorobenzene | 0.84 | | 0.8613 | | 97.8 | 80 | 120 | 0 | 0 | |

Qualifiers:

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- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1610A31

RcptNo: 1

Received by/date:

[Signature] 10/21/16

Logged By: **Ashley Gallegos**

10/21/2016 8:15:00 AM

[Signature]

Completed By: **Ashley Gallegos**

10/21/2016 8:21:02 AM

[Signature]

Reviewed By:

[Signature] 10/21/16

Chain of Custody

- Custody seals intact on sample bottles? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- VOA vials have zero headspace? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels? Yes No
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met? Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1 | 1.1 | Good | Not Present | | | |

