

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

Form C-141
Revised August 8, 2011

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: Gallegos Canyon Unit 199E	Facility Type: Natural gas well
Surface Owner: Private	Mineral Owner: Federal
API No. 3004524174	

LOCATION OF RELEASE

Unit Letter K	Section 34	Township 29N	Range 12W	Feet from the 1,560	North/South Line South	Feet from the 1,520	East/West Line West	County: San Juan
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Latitude 36.67990° Longitude -108.09035°

NATURE OF RELEASE

Type of Release: Produced water, oil and condensate	Volume of Release: unknown	Volume Recovered: none
Source of Release: Former earthen pit and separator dump line	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: February 24, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Steve Moskal	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

OIL CONS. DIV DIST. 3
MAY 11 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The site had a suspected leak associated with the dump line of the separator. During an investigation, partial delineation of contaminants determined that the release had contacted a historical impact, likely associated with an earthen pit. The soil was excavated and treated on site via soil shredding.

Describe Area Affected and Cleanup Action Taken.* The soil was excavated and treated on site via soil shredding. The final excavation measured 55'x50'x14-18' in depth. A total of 2,750 cubic yards of soil was successfully treated to meet the closure standards. The attached report documents the remedial activities. BP request no further action to be required at the site.

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>6/22/2017</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: May 11, 2017	Phone: 505-326-9497	

* Attach Additional Sheets If Necessary

NVF1706152357

85

BP AMERICA PRODUCTION COMPANY

REMEDIATION OF IMPACTS ASSOCIATED WITH 95 BARREL BELOW-GRADE TANK GALLEGOS CANYON UNIT 199E

API #: 30-045-24174

Legal Description: (Unit Letter K, Sec. 34 -T29N -R12W, NMPPM)

GPS Coordinates: 36.67990,-108.09035

CHRONOLOGICAL EVENT SUMMATION

1. **February 24, 2017:** Consultant notified by BP of impacts discovered beneath 95 barrel below-grade tank (BGT). Investigation's Initial sample collected for laboratory analysis at 13 feet (ft.) below grade (b.g.).
2. **February 27, 2017:** Investigation continued with two (2) additional soil samples collected south-southwest of BGT position.
3. **February 28, 2017:** BP submits Form C-141 initial report notification to the New Mexico Oil Conservation Division's District III Aztec office via email. Remediation Plan was included and proposed "Soil Shredding" as its primary technology. The closure standard for total petroleum hydrocarbons (TPH) was determined to be 1,000 milligrams per kilograms (mg/Kg) utilizing NMOCD's Spill and Release Guidelines.
4. **March 6, 2017:** Remediation via excavation commenced.
5. **March 8, 2017:** Sampling for closure of the excavation and treated soils was conducted. An NMOCD representative was present to witness the sample collection. The dimension of the excavation base was approximately 55 ft. x 50 ft. x 14-18 ft. depth b.g.
6. **March 10, 2017:** Sampling of remaining treated soils was completed. NMOCD representative was again present to witness the sample collection.
7. **March 14, 2017:** BP submits findings of lab results to NMOCD via email and requested startup of the backfilling operations using the treated soils.
8. **April 20, 2017:** Sampling of the treated soils vadose zone was completed. NMOCD representative was present to witness the event.
9. **April 26, 2017:** Final lab report was received. Both vadose zone samples tested below the practical quantitation limits (PQL) for all required constituents.

BP AMERICA PRODUCTION COMPANY

Gallegos Canyon Unit 199E

Unit Letter K, Section 34, T29N, R12W - API Number: 30-045-24174

Cleanup of Suspected Flow Line Release & Historical Impacts from Previously Identified Earthen Pit

Table 1

Excavation - (55 ft. x 50 ft. x 14-18 ft. depth from grade) Field & Laboratory Result Summary

SAMPLE ID WITH DESIGNATED MAP NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE	FIELD OVM READING (ppm)	TPH - cumulative (mg/Kg)	Benzene (mg/Kg)	BTEX - cumulative (mg/Kg)	Chloride (mg/Kg)	Comments	
1 @ 5' - 17'	1	03/08/17	1502	5 POINT COMPOSITE	0.6	ND	ND	ND	NORTH SIDEWALL - DARK YELLOWISH ORANGE SAND FROM GROUND SURFACE TO APPROXIMATELY 8 FT. BELOW GRADE, CLAYSTONE TO SANDSTONE BEDROCK TO EXCAVATION BASE.	
2 @ 5' - 17'	2	03/08/17	1456	5 POINT COMPOSITE	542.9	ND	ND	ND	SAME AS ABOVE EXCEPT PHYSICAL HYDROCARBON ODOR DETECTED WITHIN SAMPLE.	
3 @ 5' - 17'	3	03/08/17	1449	5 POINT COMPOSITE	36.3	ND	ND	ND	EAST SIDEWALL - DARK YELLOWISH ORANGE SAND FROM GROUND SURFACE TO APPROXIMATELY 9 FT. BELOW GRADE, CLAYSTONE TO SANDSTONE BEDROCK TO EXCAVATION BASE.	
4 @ 5' - 17'	4	03/08/17	1453	5 POINT COMPOSITE	25.9	ND	ND	93	SAME AS ABOVE.	
5 @ 5' - 17'	5	03/08/17	1441	5 POINT COMPOSITE	1.0	ND	ND	130	SOUTH SIDEWALL - DARK YELLOWISH ORANGE SAND FROM GROUND SURFACE TO APPROXIMATELY 9 FT. BELOW GRADE, CLAYSTONE TO SANDSTONE BEDROCK TO EXCAVATION BASE.	
6 @ 5' - 17'	6	03/08/17	1444	5 POINT COMPOSITE	0.5	ND	ND	ND	SAME AS ABOVE.	
7 @ 5' - 14'	7	03/08/17	1527	5 POINT COMPOSITE	3.0	ND	ND	85	WEST SIDEWALL - DARK YELLOWISH ORANGE SAND FROM GROUND SURFACE TO APPROXIMATELY 7 - 8 FT. BELOW GRADE, CLAYSTONE TO SANDSTONE BEDROCK TO EXCAVATION BASE.	
8 @ 5' - 14'	8	03/08/17	1514	5 POINT COMPOSITE	1,893	ND	ND	0.42	ND	SAME AS ABOVE EXCEPT PHYSICAL HYDROCARBON ODOR DETECTED WITHIN SAMPLE.
9 @ 14' - 15'	9	03/08/17	1522	5 POINT COMPOSITE	31.3	ND	0.041	0.629	78	EXCAVATION BASE - MOSTLY DARK YELLOWISH ORANGE SANDSTONE.
10 @ 16' - 18'	10	03/08/17	1505	5 POINT COMPOSITE	568.5	24	ND	ND	67	SAME AS ABOVE WITH ISOLATED & MINUTE PATCHES OF DISCOLORATION (varying shades of gray to black).
NMOCD RELEASE CLOSURE STANDARDS (soils) -					100	1,000	10	50		

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).

TPH - Total petroleum hydrocarbons by US EPA Method 8015B.

BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.

ppm - Parts per million or milligram per kilogram (mg/Kg).

ND - Not detected at the Practical Quantitation Limits (PQL).

NMOCD - New Mexico Oil Conservation Division.

NMOCD RELEASE CLOSURE STANDARDS REFERENCE: "Guidelines for Remediation of Leaks, Spills and Releases" dated: August 13, 1993.

OVM CALIBRATION: RESPONSE FACTOR = 1.00, CALIBRATION GAS - 100 ppm ISOBUTYLENE.

OVM CALIBRATION DATA: Date: 03/08/2017 Time: 1425 Reading: 100.0 ppm

BP AMERICA PRODUCTION COMPANY

Gallegos Canyon Unit 199E

Unit Letter K, Section 34, T29N, R12W - API Number: 30-045-24174

Cleanup of Suspected Flow Line Release & Historical Impacts from Previously Identified Earthen Pit

Table 2

Temporary Stockpiles of Treated Soils / Bedrock Field & Laboratory Result Summary

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SOIL VOLUME (cubic yards)	SAMPLE TYPE	TPH - cumulative (mg/Kg)	Benzene (mg/Kg)	BTEX - cumulative (mg/Kg)	Chloride (mg/Kg)	Comments
TSP 1	03/08/17	1345	100	5 POINT COMPOSITE	3.6	ND	0.21	ND	MOSTLY DARK YELLOWISH ORANGE SAND & CLAYSTONE & SANDSTONE FRAGMENTS, SMALL INCLUSIONS OF CLAYSTONE WITH VARYING COLORS RANGING FROM DUSKY RED TO DARK GRAY.
TSP 2	03/08/17	1355	100	5 POINT COMPOSITE	ND	ND	ND	31	SAME AS ABOVE.
TSP 3	03/08/17	1400	100	5 POINT COMPOSITE	8.7	ND	0.816	42	SAME AS ABOVE.
TSP 4	03/08/17	1404	100	5 POINT COMPOSITE	ND	ND	ND	43	SAME AS ABOVE.
TSP 5	03/08/17	1407	100	5 POINT COMPOSITE	ND	ND	0.093	41	SAME AS ABOVE.
TSP 6	03/08/17	1410	100	5 POINT COMPOSITE	ND	ND	0.074	40	SAME AS ABOVE.
TSP 7	03/08/17	1412	100	5 POINT COMPOSITE	ND	ND	ND	ND	SAME AS ABOVE.
TSP 8	03/08/17	1414	100	5 POINT COMPOSITE	44	ND	1.103	ND	SAME AS ABOVE.
TSP 9	03/08/17	1418	100	5 POINT COMPOSITE	19	ND	0.546	31	SAME AS ABOVE.
TSP 10	03/08/17	1420	100	5 POINT COMPOSITE	88	0.034	5.244	ND	SAME AS ABOVE.
TSP 11	03/10/17	1245	500	5 POINT COMPOSITE	9.9	ND	0.512	ND	SAME AS ABOVE.
TSP 12	03/10/17	1250	500	5 POINT COMPOSITE	40	ND	1.1	ND	SAME AS ABOVE.
TSP 13	03/10/17	1300	500	5 POINT COMPOSITE	11	ND	0.51	ND	SAME AS ABOVE.
TSP 14	03/10/17	1310	250	5 POINT COMPOSITE	37	ND	ND	ND	SAME AS ABOVE.
NMOCD RELEASE CLOSURE STANDARDS (soils) -					1,000	10	50		

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).

TPH - Total petroleum hydrocarbons by US EPA Method 8015B.

BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.

mg/Kg - Milligrams per Kilogram.

ND - Not detected at the Practical Quantitation Limits (PQL).

NMOCD - New Mexico Oil Conservation Division.

NMOCD RELEASE CLOSURE STANDARDS REFERENCE: "Guidelines for Remediation of Leaks, Spills and Releases" dated: August 13, 1993.

BP AMERICA PRODUCTION COMPANY

Gallegos Canyon Unit 199E

Unit Letter K, Section 34, T29N, R12W - API Number: 30-045-24174

Cleanup of Suspected Flow Line Release & Historical Impacts from Previously Identified Earthen Pit

Table 3

Temporary Stockpile Vadose Zone Area Field & Laboratory Result Summary

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	AREA DIMENSIONS (feet)	SAMPLE TYPE	TPH - cumulative (mg/Kg)	Benzene (mg/Kg)	BTEX - cumulative (mg/Kg)	Chloride (mg/Kg)	Comments
TSP - VZ @ 0.25' - 1' (EAST)	04/20/17	0920	70 x 40	5 POINT COMPOSITE	ND	ND	ND	ND	DARK YELLOWISH ORANGE SAND, VERY DRY & HARD AT GROUND SURFACE, NO PHYSICAL EVIDENCE OF ANY DISCOLORATION OR HYDROCARBON ODOR DETECTED FROM INDIVIDUAL SAMPLE POINTS.
TSP - VZ @ 0.25' - 1' (WEST)	04/20/17	0940	70 x 40	5 POINT COMPOSITE	ND	ND	ND	ND	SAME AS ABOVE.
NMOCD RELEASE CLOSURE STANDARDS (soils) -					1,000	10	50		

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).

TPH - Total petroleum hydrocarbons by US EPA Method 8015B.

BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.

mg/Kg - Milligrams per Kilogram.

ND - Not detected at the Practical Quantitation Limits (PQL).

NMOCD - New Mexico Oil Conservation Division.

NMOCD RELEASE CLOSURE STANDARDS REFERENCE: "Guidelines for Remediation of Leaks, Spills and Releases" dated: August 13, 1993.

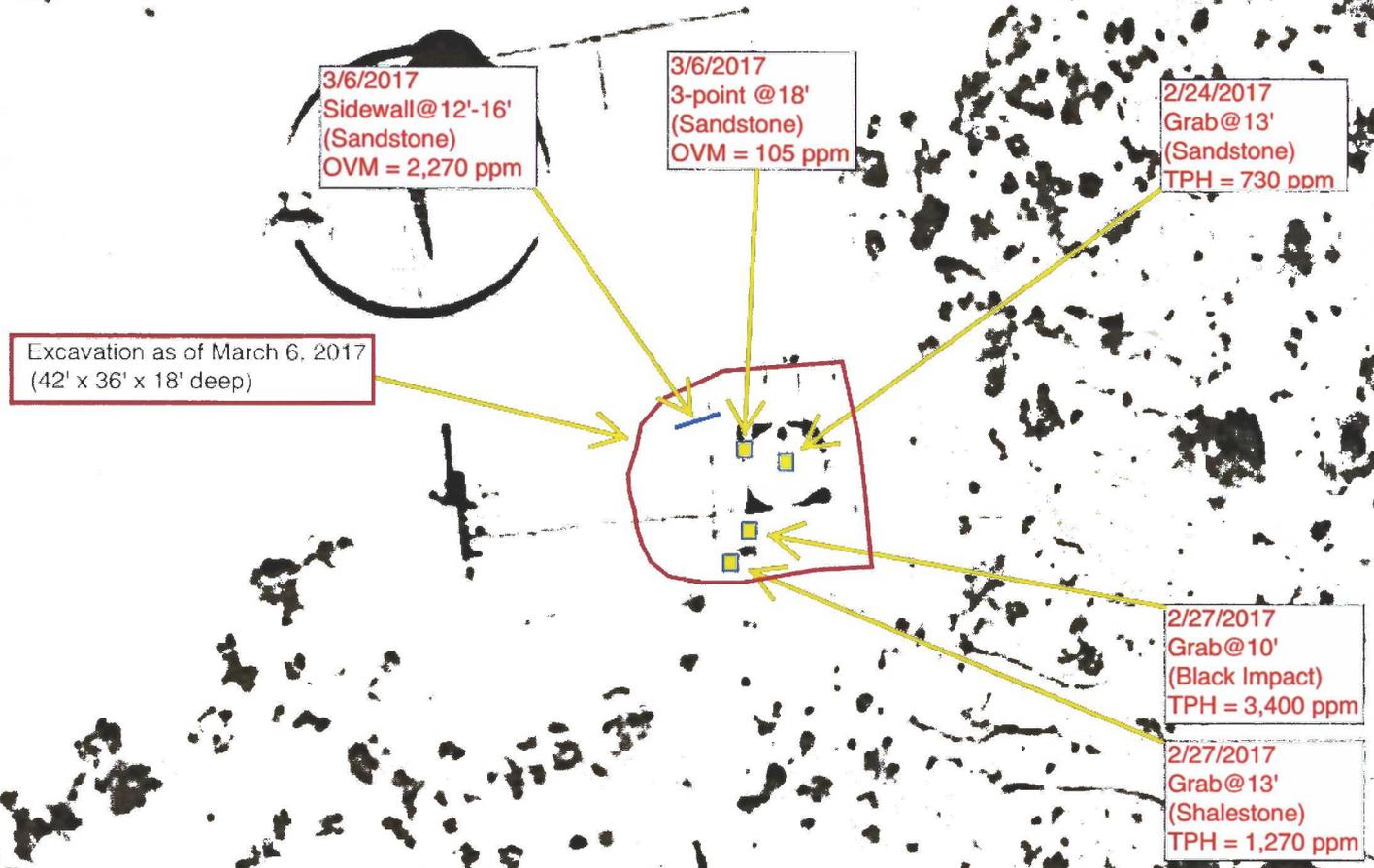
BP - GCU 199E

FIGURE 1



GCU 199E

FIGURE 2



GCU 199E

BP - GCU 199E

FIGURE 3

Approximation of
Final Excavation
Area



WH

Crest of Slope



FIGURE 4

BP - GCU 199E

Area with Greatest Depth
Approximately 18 ft. Below Grade

Excavation Area
Estimate: 55' x 50' x 14'-18'



Area with Shallowest Depth
Approximately 14 ft. Below Grade

SAMPLE ID	TIME	OVM (ppm)
1 @ 5' - 17'	1502	0.6
2 @ 5' - 17'	1456	542.9
3 @ 5' - 17'	1449	36.3
4 @ 5' - 17'	1453	25.9
5 @ 5' - 17'	1441	1.0
6 @ 5' - 17'	1444	0.5
7 @ 5' - 14'	1327	3.0
8 @ 5' - 14'	1514	1,893
9 @ 14' 15'	1522	31.3
10 @ 16' - 18'	1505	568.5

Notes:

1. ppm - Parts per million
2. All samples were 5 point composite
3. Bedrock consisted of sandstone & claystone.

INVESTIGATION

LABORATORY

RESULTS

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1702B92

Date Reported: 3/2/2017

CLIENT: Blagg Engineering

Client Sample ID: Grab@10'(Black)

Project: GCU 199E

Collection Date: 2/27/2017 9:55:00 AM

Lab ID: 1702B92-001

Matrix: MEOH (SOIL)

Received Date: 2/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	1200	96		mg/Kg	10	3/1/2017 10:18:11 AM	30440
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	3/1/2017 10:18:11 AM	30440
Surr: DNOP	0	70-130	S	%Rec	10	3/1/2017 10:18:11 AM	30440
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2200	160		mg/Kg	50	2/28/2017 10:00:49 AM	G41048
Surr: BFB	271	54-150	S	%Rec	50	2/28/2017 10:00:49 AM	G41048

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 1702B92
 Date Reported: 3/2/2017

CLIENT: Blagg Engineering
Project: GCU 199E
Lab ID: 1702B92-002

Client Sample ID: Grab@13' (Shale)
Collection Date: 2/27/2017 10:15:00 AM
Received Date: 2/28/2017 7:30:00 AM

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	600	100		mg/Kg	10	3/1/2017 9:56:44 AM	30440
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	3/1/2017 9:56:44 AM	30440
Surr: DNOP	0	70-130	S	%Rec	10	3/1/2017 9:56:44 AM	30440
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	670	90		mg/Kg	20	2/28/2017 1:09:21 PM	G41048
Surr: BFB	233	54-150	S	%Rec	20	2/28/2017 1:09:21 PM	G41048

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 1703249

Date Reported: 3/8/2017

CLIENT: Blagg Engineering

Client Sample ID: North Wall 3-pt (12'-16')

Project: GCU #199E

Collection Date: 3/6/2017 3:00:00 PM

Lab ID: 1703249-001

Matrix: SOIL

Received Date: 3/7/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	29	9.8		mg/Kg	1	3/7/2017 9:27:07 AM	30556
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/7/2017 9:27:07 AM	30556
Surr: DNOP	113	70-130		%Rec	1	3/7/2017 9:27:07 AM	30556
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	130	19		mg/Kg	5	3/7/2017 10:11:41 AM	30545
Surr: BFB	310	54-150	S	%Rec	5	3/7/2017 10:11:41 AM	30545
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.37	0.094		mg/Kg	5	3/7/2017 10:11:41 AM	30545
Toluene	1.6	0.19		mg/Kg	5	3/7/2017 10:11:41 AM	30545
Ethylbenzene	0.62	0.19		mg/Kg	5	3/7/2017 10:11:41 AM	30545
Xylenes, Total	8.2	0.38		mg/Kg	5	3/7/2017 10:11:41 AM	30545
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/7/2017 10:11:41 AM	30545

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 1703249
 Date Reported: 3/8/2017

CLIENT: Blagg Engineering

Client Sample ID: Base 3-pt @ 18'

Project: GCU #199E

Collection Date: 3/6/2017 3:25:00 PM

Lab ID: 1703249-002

Matrix: SOIL

Received Date: 3/7/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/7/2017 9:48:38 AM	30556
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/7/2017 9:48:38 AM	30556
Surr: DNOP	115	70-130		%Rec	1	3/7/2017 9:48:38 AM	30556
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/7/2017 11:04:24 AM	30545
Surr: BFB	117	54-150		%Rec	1	3/7/2017 11:04:24 AM	30545

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

Chain-of-Custody Record

Client: BP America

BLAGG ENGINEERING INC.

Mailing Address:

Phone #: 505-320-1183

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation

NELAP Other _____

EDD (Type) _____

DATE-TIME: BY WEDNESDAY 3/1/2017
 Standard Rush

Project Name: GCU 199E

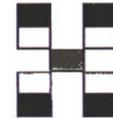
Project #:

Project Manager: J. Blagg

Sampler: J. Blagg

On Ice: Yes No

Sample Temperature: 1.9



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<u>2/27/16</u>	<u>0955</u>	<u>SOIL</u>	<u>GRAB @ 10' (BLACK)</u>	<u>4 oz x 1</u>	<u>COOL</u>	<u>1702B9Z -001</u>			<u>X</u>									
<u>"</u>	<u>1015</u>	<u>"</u>	<u>GRAB @ 13' (SHALE)</u>	<u>"</u>	<u>"</u>	<u>-002</u>			<u>X</u>									

Date: 2/27/2017 Time: 1643 Relinquished by: Jeff Blagg

Received by: [Signature] Date: 2/27/2017 Time: 1643

Date: 2/27/17 Time: 1855 Relinquished by: Christina Wiseto

Received by: [Signature] Date: 02/28/17 Time: 0730

Remarks: Bill BP CONTACT: STEVE MOSKAL VID: VHIXONEVRM

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B45

28-Feb-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	MB-30417	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	30417	RunNo:	41012					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1285131	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30417	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	30417	RunNo:	41012					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1285132	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. | 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#: 1702B45
28-Feb-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID	MB-30398	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30398	RunNo:	40996					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1283935	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-30398	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30398	RunNo:	40996					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1283956	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.3	63.8	116			
Surr: DNOP	4.6		5.000		91.2	70	130			

Sample ID	1702B45-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Grab @ 13'	Batch ID:	30398	RunNo:	41002					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1284209	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	420	9.4	46.77	301.6	254	51.6	130			S
Surr: DNOP	4.5		4.677		96.2	70	130			

Sample ID	1702B45-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Grab @ 13'	Batch ID:	30398	RunNo:	41002					
Prep Date:	2/27/2017	Analysis Date:	2/27/2017	SeqNo:	1284233	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	410	9.3	46.43	301.6	226	51.6	130	3.40	20	S
Surr: DNOP	4.4		4.643		95.5	70	130	0	0	

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#: 1702B45

28-Feb-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G41013		RunNo: 41013							
Prep Date:	Analysis Date: 2/27/2017		SeqNo: 1284683		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	54	150			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G41013		RunNo: 41013							
Prep Date:	Analysis Date: 2/27/2017		SeqNo: 1284684		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	76.4	125			
Surr: BFB	1200		1000		119	54	150			

Sample ID MB-30385	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 30385		RunNo: 41013							
Prep Date: 2/24/2017	Analysis Date: 2/27/2017		SeqNo: 1284702		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	830		1000		82.5	54	150			

Sample ID LCS-30385	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 30385		RunNo: 41013							
Prep Date: 2/24/2017	Analysis Date: 2/27/2017		SeqNo: 1284703		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	54	150			

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#: 1702B45
28-Feb-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B41013		RunNo: 41013							
Prep Date:	Analysis Date: 2/27/2017		SeqNo: 1284736		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		112	80	120			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B41013		RunNo: 41013							
Prep Date:	Analysis Date: 2/27/2017		SeqNo: 1284749		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.5	75.2	115			
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	104	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	108	79.2	115			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID MB-30385	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 30385		RunNo: 41013							
Prep Date: 2/24/2017	Analysis Date: 2/27/2017		SeqNo: 1284760		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		89.0	80	120			

Sample ID LCS-30385	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 30385		RunNo: 41013							
Prep Date: 2/24/2017	Analysis Date: 2/27/2017		SeqNo: 1284761		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.84		1.000		84.4	80	120			

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



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 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1702B45**

RcptNo: **1**

Received by/date:

[Signature] 02/25/17

Logged By: **Lindsay Mangin**

2/25/2017 8:35:00 AM

[Signature]

Completed By: **Lindsay Mangin**

2/27/2017 7:51:42 AM

[Signature]

Reviewed By:

IO 02/27/17

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

- 16. 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	1.7	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1702B92
02-Mar-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID	LCS-30440	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30440	RunNo:	41070					
Prep Date:	2/28/2017	Analysis Date:	3/1/2017	SeqNo:	1286611	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.8	116			
Surr: DNOP	4.9		5.000		98.6	70	130			

Sample ID	MB-30440	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30440	RunNo:	41070					
Prep Date:	2/28/2017	Analysis Date:	3/1/2017	SeqNo:	1286612	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

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#: 1702B92
02-Mar-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G41048		RunNo: 41048							
Prep Date:	Analysis Date: 2/28/2017		SeqNo: 1286126		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	880		1000		87.6	54	150			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G41048		RunNo: 41048							
Prep Date:	Analysis Date: 2/28/2017		SeqNo: 1286127		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.8	76.4	125			
Surr: BFB	940		1000		94.3	54	150			

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 |

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1702B92

RcptNo: 1

Received by/date: [Signature] 02/28/17

Logged By: **Lindsay Mangin** 2/28/2017 7:30:00 AM [Signature]

Completed By: **Lindsay Mangin** 2/28/2017 8:31:53 AM [Signature]

Reviewed By:

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

- 16. 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: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703249

08-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	LCS-30556	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30556	RunNo:	41180					
Prep Date:	3/7/2017	Analysis Date:	3/7/2017	SeqNo:	1289972	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	96.3	63.8	116			
Surr: DNOP	4.9		5.000		97.2	70	130			

Sample ID	MB-30556	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30556	RunNo:	41180					
Prep Date:	3/7/2017	Analysis Date:	3/7/2017	SeqNo:	1289973	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		111	70	130			

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#: 1703249
08-Mar-17

Client: Blagg Engineering
Project: GCU #199E

Sample ID MB-30545	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 30545		RunNo: 41188							
Prep Date: 3/6/2017	Analysis Date: 3/7/2017		SeqNo: 1290708		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	980		1000		98.2	54	150			

Sample ID LCS-30545	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 30545		RunNo: 41188							
Prep Date: 3/6/2017	Analysis Date: 3/7/2017		SeqNo: 1290709		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	76.4	125			
Surr: BFB	1100		1000		113	54	150			

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#: 1703249

08-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	MB-30545	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	30545	RunNo:	41188					
Prep Date:	3/6/2017	Analysis Date:	3/7/2017	SeqNo:	1290714	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		107	66.6	132			

Sample ID	LCS-30545	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	30545	RunNo:	41188					
Prep Date:	3/6/2017	Analysis Date:	3/7/2017	SeqNo:	1290715	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	75.2	115			
Toluene	0.96	0.050	1.000	0	96.5	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.6	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	102	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	66.6	132			

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 |



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 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703249**

RcptNo: **1**

Received by/date: At 03/07/17

Logged By: **Anne Thorne** 3/7/2017 7:15:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/7/2017 7:26:21 AM *Anne Thorne*

Reviewed By: AT 03/07/17

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

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

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

17. Additional remarks:

18. Cooler Information

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

**EXCAVATION
LABORATORY
RESULTS**

Analytical Report

Lab Order 1703437

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 1 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 3:02:00 PM

Lab ID: 1703437-001

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/9/2017 10:44:22 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/9/2017 11:53:58 AM	30605
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 11:53:58 AM	30605
Surr: DNOP	93.0	70-130		%Rec	1	3/9/2017 11:53:58 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/9/2017 9:56:55 AM	G41266
Surr: BFB	84.4	54-150		%Rec	1	3/9/2017 9:56:55 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	3/9/2017 9:56:55 AM	B41266
Toluene	ND	0.043		mg/Kg	1	3/9/2017 9:56:55 AM	B41266
Ethylbenzene	ND	0.043		mg/Kg	1	3/9/2017 9:56:55 AM	B41266
Xylenes, Total	ND	0.086		mg/Kg	1	3/9/2017 9:56:55 AM	B41266
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	3/9/2017 9:56:55 AM	B41266

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.

CLIENT: Blagg Engineering

Client Sample ID: 2 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 2:56:00 PM

Lab ID: 1703437-002

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/9/2017 10:56:46 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/9/2017 12:18:31 PM	30605
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 12:18:31 PM	30605
Surr: DNOP	95.6	70-130		%Rec	1	3/9/2017 12:18:31 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	3/9/2017 10:20:21 AM	G41266
Surr: BFB	90.2	54-150		%Rec	5	3/9/2017 10:20:21 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	3/9/2017 10:20:21 AM	B41266
Toluene	ND	0.25		mg/Kg	5	3/9/2017 10:20:21 AM	B41266
Ethylbenzene	ND	0.25		mg/Kg	5	3/9/2017 10:20:21 AM	B41266
Xylenes, Total	ND	0.49		mg/Kg	5	3/9/2017 10:20:21 AM	B41266
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	5	3/9/2017 10:20:21 AM	B41266

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.

CLIENT: Blagg Engineering

Client Sample ID: 3 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 2:49:00 PM

Lab ID: 1703437-003

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/9/2017 11:09:11 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/9/2017 12:43:04 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 12:43:04 PM	30605
Surr: DNOP	103	70-130		%Rec	1	3/9/2017 12:43:04 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/9/2017 10:43:46 AM	G41266
Surr: BFB	86.9	54-150		%Rec	1	3/9/2017 10:43:46 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	3/9/2017 10:43:46 AM	B41266
Toluene	ND	0.041		mg/Kg	1	3/9/2017 10:43:46 AM	B41266
Ethylbenzene	ND	0.041		mg/Kg	1	3/9/2017 10:43:46 AM	B41266
Xylenes, Total	ND	0.083		mg/Kg	1	3/9/2017 10:43:46 AM	B41266
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	3/9/2017 10:43:46 AM	B41266

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.

CLIENT: Blagg Engineering

Client Sample ID: 4 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 2:53:00 PM

Lab ID: 1703437-004

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	93	30		mg/Kg	20	3/9/2017 11:21:36 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/9/2017 1:07:38 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 1:07:38 PM	30605
Surr: DNOP	91.1	70-130		%Rec	1	3/9/2017 1:07:38 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	3/9/2017 11:07:17 AM	G41266
Surr: BFB	85.0	54-150		%Rec	1	3/9/2017 11:07:17 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	3/9/2017 11:07:17 AM	B41266
Toluene	ND	0.044		mg/Kg	1	3/9/2017 11:07:17 AM	B41266
Ethylbenzene	ND	0.044		mg/Kg	1	3/9/2017 11:07:17 AM	B41266
Xylenes, Total	ND	0.087		mg/Kg	1	3/9/2017 11:07:17 AM	B41266
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	3/9/2017 11:07:17 AM	B41266

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 1703437

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 2:41:00 PM

Lab ID: 1703437-005

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	130	30		mg/Kg	20	3/9/2017 11:34:01 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/9/2017 1:32:25 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 1:32:25 PM	30605
Surr: DNOP	88.9	70-130		%Rec	1	3/9/2017 1:32:25 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/9/2017 11:30:41 AM	G41266
Surr: BFB	86.6	54-150		%Rec	1	3/9/2017 11:30:41 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/9/2017 11:30:41 AM	B41266
Toluene	ND	0.047		mg/Kg	1	3/9/2017 11:30:41 AM	B41266
Ethylbenzene	ND	0.047		mg/Kg	1	3/9/2017 11:30:41 AM	B41266
Xylenes, Total	ND	0.094		mg/Kg	1	3/9/2017 11:30:41 AM	B41266
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	3/9/2017 11:30:41 AM	B41266

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 1703437

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 6 @ 5'-17'

Project: GCU #199E

Collection Date: 3/8/2017 2:44:00 PM

Lab ID: 1703437-006

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/9/2017 11:46:25 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/9/2017 1:57:06 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 1:57:06 PM	30605
Surr: DNOP	89.6	70-130		%Rec	1	3/9/2017 1:57:06 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	3/9/2017 11:54:06 AM	G41266
Surr: BFB	86.6	54-150		%Rec	1	3/9/2017 11:54:06 AM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	3/9/2017 11:54:06 AM	B41266
Toluene	ND	0.044		mg/Kg	1	3/9/2017 11:54:06 AM	B41266
Ethylbenzene	ND	0.044		mg/Kg	1	3/9/2017 11:54:06 AM	B41266
Xylenes, Total	ND	0.088		mg/Kg	1	3/9/2017 11:54:06 AM	B41266
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	3/9/2017 11:54:06 AM	B41266

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 1703437

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 7 @ 5'-14'

Project: GCU #199E

Collection Date: 3/8/2017 3:27:00 PM

Lab ID: 1703437-007

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	85	30		mg/Kg	20	3/9/2017 11:58:50 AM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/9/2017 12:34:10 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 12:34:10 PM	30605
Surr: DNOP	84.6	70-130		%Rec	1	3/9/2017 12:34:10 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/9/2017 12:17:33 PM	G41266
Surr: BFB	85.6	54-150		%Rec	1	3/9/2017 12:17:33 PM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	3/9/2017 12:17:33 PM	B41266
Toluene	ND	0.040		mg/Kg	1	3/9/2017 12:17:33 PM	B41266
Ethylbenzene	ND	0.040		mg/Kg	1	3/9/2017 12:17:33 PM	B41266
Xylenes, Total	ND	0.080		mg/Kg	1	3/9/2017 12:17:33 PM	B41266
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	3/9/2017 12:17:33 PM	B41266

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 1703437

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 8 @ 5'-14'

Project: GCU #199E

Collection Date: 3/8/2017 3:14:00 PM

Lab ID: 1703437-008

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/9/2017 12:11:14 PM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/9/2017 12:06:04 PM	30605
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 12:06:04 PM	30605
Surr: DNOP	85.9	70-130		%Rec	1	3/9/2017 12:06:04 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	3/9/2017 12:40:56 PM	G41266
Surr: BFB	89.4	54-150		%Rec	5	3/9/2017 12:40:56 PM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.097		mg/Kg	5	3/10/2017 1:05:33 PM	30613
Toluene	ND	0.19		mg/Kg	5	3/10/2017 1:05:33 PM	30613
Ethylbenzene	ND	0.19		mg/Kg	5	3/10/2017 1:05:33 PM	30613
Xylenes, Total	0.42	0.39		mg/Kg	5	3/10/2017 1:05:33 PM	30613
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	5	3/10/2017 1:05:33 PM	30613

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.

CLIENT: Blagg Engineering

Client Sample ID: 9 @ 14'-15'

Project: GCU #199E

Collection Date: 3/8/2017 3:22:00 PM

Lab ID: 1703437-009

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	78	30		mg/Kg	20	3/9/2017 12:48:28 PM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/9/2017 11:38:20 AM	30605
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/9/2017 11:38:20 AM	30605
Surr: DNOP	87.1	70-130		%Rec	1	3/9/2017 11:38:20 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	3/9/2017 1:04:22 PM	G41266
Surr: BFB	96.2	54-150		%Rec	1	3/9/2017 1:04:22 PM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.041	0.026		mg/Kg	1	3/10/2017 1:31:49 PM	30613
Toluene	0.16	0.051		mg/Kg	1	3/10/2017 1:31:49 PM	30613
Ethylbenzene	0.068	0.051		mg/Kg	1	3/10/2017 1:31:49 PM	30613
Xylenes, Total	0.36	0.10		mg/Kg	1	3/10/2017 1:31:49 PM	30613
Surr: 4-Bromofluorobenzene	96.5	66.6-132		%Rec	1	3/10/2017 1:31:49 PM	30613

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.

CLIENT: Blagg Engineering

Client Sample ID: 10 @ 16'-18'

Project: GCU #199E

Collection Date: 3/8/2017 3:05:00 PM

Lab ID: 1703437-010

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	67	30		mg/Kg	20	3/9/2017 1:00:52 PM	30612
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	24	9.8		mg/Kg	1	3/9/2017 11:10:32 AM	30605
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/9/2017 11:10:32 AM	30605
Surr: DNOP	87.0	70-130		%Rec	1	3/9/2017 11:10:32 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	22		mg/Kg	5	3/9/2017 1:27:41 PM	G41266
Surr: BFB	104	54-150		%Rec	5	3/9/2017 1:27:41 PM	G41266
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.11		mg/Kg	5	3/9/2017 1:27:41 PM	B41266
Toluene	ND	0.22		mg/Kg	5	3/9/2017 1:27:41 PM	B41266
Ethylbenzene	ND	0.22		mg/Kg	5	3/9/2017 1:27:41 PM	B41266
Xylenes, Total	ND	0.43		mg/Kg	5	3/9/2017 1:27:41 PM	B41266
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	5	3/9/2017 1:27:41 PM	B41266

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

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87
BLOOMFIELD, NM 87413**

Phone #: **(505) 632-1199**

email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation:

NELAP Other

EDD (Type)

Turn-Around Time:

Standard Rush

Project Name:

GCU # 199E

Project #:

Project Manager:

NELSON VELEZ

Sampler:

NELSON VELEZ

Office:

Yes No

Sample Temperature:

Cool No

AS109117
Container
Type and #

Preservative
Type

HEALTH No

4oz. - 1
Metallic

Cool

1703437



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALTH No	BTEX + MTBE + TPH (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)	
3/8/17	1502	SOIL	1 @ 5'-17'	AS109117 Metallic	Cool	1703437	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1456		2 @ 5'-17'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1449		3 @ 5'-17'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1453		4 @ 5'-17'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1441		5 @ 5'-17'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1444		6 @ 5'-17'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1527		7 @ 5'-14'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1514		8 @ 5'-14'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1522		9 @ 5'-15'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	
3/8/17	1505		10 @ 5'-18'				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	

Date: 3/8/17 Time: 1710 Relinquished by: *[Signature]* Received by: *[Signature]* Date: 3/8/17 Time: 1710

Date: 3/8/17 Time: 1952 Relinquished by: *[Signature]* Received by: *[Signature]* Date: 03/09/17 Time: 0710

Remarks: **BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE.**
CONTACT: STEVE MOSKAL / VANCE HIXON
VID: VHIXONEVRM

Reference # **P - 806** WBS Element **L1-0018M-E:24174**

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703437
13-Mar-17

Client: Blagg Engineering
Project: GCU #199E

Sample ID MB-30612	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 30612	RunNo: 41268								
Prep Date: 3/9/2017	Analysis Date: 3/9/2017	SeqNo: 1293993	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-30612	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 30612	RunNo: 41268								
Prep Date: 3/9/2017	Analysis Date: 3/9/2017	SeqNo: 1293994	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	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#: 1703437

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	LCS-30605	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30605	RunNo:	41254					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1292392	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.9	63.8	116			
Surr: DNOP	4.9		5.000		98.3	70	130			

Sample ID	MB-30605	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30605	RunNo:	41254					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1292393	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	70	130			

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#: 1703437

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G41266	RunNo:	41266					
Prep Date:		Analysis Date:	3/9/2017	SeqNo:	1293380	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	870		1000		87.2	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G41266	RunNo:	41266					
Prep Date:		Analysis Date:	3/9/2017	SeqNo:	1293381	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.2	76.4	125			
Surr: BFB	940		1000		94.4	54	150			

Sample ID	MB-30613	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30613	RunNo:	41306					
Prep Date:	3/9/2017	Analysis Date:	3/10/2017	SeqNo:	1294532	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	820		1000		81.9	54	150			

Sample ID	LCS-30613	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30613	RunNo:	41306					
Prep Date:	3/9/2017	Analysis Date:	3/10/2017	SeqNo:	1294534	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.4	54	150			

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#: 1703437

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B41266		RunNo: 41266							
Prep Date:	Analysis Date: 3/9/2017		SeqNo: 1293393		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	1.2		1.000		120	66.6	132			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B41266		RunNo: 41266							
Prep Date:	Analysis Date: 3/9/2017		SeqNo: 1293394		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	80	120			
Toluene	1.1	0.050	1.000	0	112	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.5	0.10	3.000	0	115	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID MB-30613	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 30613		RunNo: 41306							
Prep Date: 3/9/2017	Analysis Date: 3/10/2017		SeqNo: 1294570		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	0.90		1.000		89.9	66.6	132			

Sample ID LCS-30613	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 30613		RunNo: 41306							
Prep Date: 3/9/2017	Analysis Date: 3/10/2017		SeqNo: 1294577		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.7	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.6	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.1	66.6	132			

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



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

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1703437

RcptNo: 1

Received by/date: A 03/09/17

Logged By: **Anne Thorne** 3/9/2017 7:10:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/9/2017 8:03:33 AM *Anne Thorne*

Reviewed By: *AS* 03/09/17

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?
(Note discrepancies on chain of custody) Yes No
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked 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: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

- Additional remarks:

18. Cooler Information

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

**STOCKPILE
LABORATORY
RESULTS**

Analytical Report

Lab Order 1703436

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Blagg Engineering**Client Sample ID:** TSP 1**Project:** GCU #199E**Collection Date:** 3/8/2017 1:45:00 PM**Lab ID:** 1703436-001**Matrix:** SOIL**Received Date:** 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	3/9/2017 11:24:01 AM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/9/2017 10:12:52 AM	30605
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 10:12:52 AM	30605
Surr: DNOP	106	70-130		%Rec	1	3/9/2017 10:12:52 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3.6	3.5		mg/Kg	1	3/9/2017 10:00:07 AM	G41265
Surr: BFB	128	54-150		%Rec	1	3/9/2017 10:00:07 AM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	3/9/2017 10:00:07 AM	B41265
Toluene	ND	0.035		mg/Kg	1	3/9/2017 10:00:07 AM	B41265
Ethylbenzene	ND	0.035		mg/Kg	1	3/9/2017 10:00:07 AM	B41265
Xylenes, Total	0.21	0.069		mg/Kg	1	3/9/2017 10:00:07 AM	B41265
Surr: 4-Bromofluorobenzene	90.7	66.6-132		%Rec	1	3/9/2017 10:00:07 AM	B41265

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 1703436
 Date Reported: 3/13/2017

CLIENT: Blagg Engineering **Client Sample ID:** TSP 2
Project: GCU #199E **Collection Date:** 3/8/2017 1:55:00 PM
Lab ID: 1703436-002 **Matrix:** SOIL **Received Date:** 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	31	30		mg/Kg	20	3/9/2017 11:36:25 AM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/9/2017 10:34:35 AM	30605
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/9/2017 10:34:35 AM	30605
Surr: DNOP	107	70-130		%Rec	1	3/9/2017 10:34:35 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/9/2017 10:26:23 AM	G41265
Surr: BFB	128	54-150		%Rec	1	3/9/2017 10:26:23 AM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	3/9/2017 10:26:23 AM	B41265
Toluene	ND	0.037		mg/Kg	1	3/9/2017 10:26:23 AM	B41265
Ethylbenzene	ND	0.037		mg/Kg	1	3/9/2017 10:26:23 AM	B41265
Xylenes, Total	ND	0.074		mg/Kg	1	3/9/2017 10:26:23 AM	B41265
Surr: 4-Bromofluorobenzene	94.1	66.6-132		%Rec	1	3/9/2017 10:26:23 AM	B41265

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 1703436

Date Reported: 3/13/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP 3

Project: GCU #199E

Collection Date: 3/8/2017 2:00:00 PM

Lab ID: 1703436-003

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	42	30		mg/Kg	20	3/9/2017 11:48:50 AM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/9/2017 10:56:15 AM	30605
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 10:56:15 AM	30605
Surr: DNOP	106	70-130		%Rec	1	3/9/2017 10:56:15 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	8.7	3.8		mg/Kg	1	3/9/2017 10:52:43 AM	G41265
Surr: BFB	144	54-150		%Rec	1	3/9/2017 10:52:43 AM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	3/9/2017 10:52:43 AM	B41265
Toluene	0.12	0.038		mg/Kg	1	3/9/2017 10:52:43 AM	B41265
Ethylbenzene	0.046	0.038		mg/Kg	1	3/9/2017 10:52:43 AM	B41265
Xylenes, Total	0.65	0.075		mg/Kg	1	3/9/2017 10:52:43 AM	B41265
Surr: 4-Bromofluorobenzene	92.5	66.6-132		%Rec	1	3/9/2017 10:52:43 AM	B41265

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 **1703436**

Date Reported: **3/13/2017**

CLIENT: Blagg Engineering

Client Sample ID: TSP 4

Project: GCU #199E

Collection Date: 3/8/2017 2:04:00 PM

Lab ID: 1703436-004

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	43	30		mg/Kg	20	3/9/2017 12:01:14 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	3/9/2017 11:39:54 AM	30605
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/9/2017 11:39:54 AM	30605
Surr: DNOP	109	70-130		%Rec	1	3/9/2017 11:39:54 AM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/9/2017 11:19:05 AM	G41265
Surr: BFB	104	54-150		%Rec	1	3/9/2017 11:19:05 AM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	3/9/2017 11:19:05 AM	B41265
Toluene	ND	0.038		mg/Kg	1	3/9/2017 11:19:05 AM	B41265
Ethylbenzene	ND	0.038		mg/Kg	1	3/9/2017 11:19:05 AM	B41265
Xylenes, Total	ND	0.076		mg/Kg	1	3/9/2017 11:19:05 AM	B41265
Surr: 4-Bromofluorobenzene	85.7	66.6-132		%Rec	1	3/9/2017 11:19:05 AM	B41265

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 1703436

Date Reported: 3/13/2017

CLIENT: Blagg Engineering

Client Sample ID: TSP 5

Project: GCU #199E

Collection Date: 3/8/2017 2:07:00 PM

Lab ID: 1703436-005

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	41	30		mg/Kg	20	3/9/2017 12:13:40 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/9/2017 12:01:40 PM	30605
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/9/2017 12:01:40 PM	30605
Surr: DNOP	108	70-130		%Rec	1	3/9/2017 12:01:40 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/9/2017 11:45:24 AM	G41265
Surr: BFB	94.2	54-150		%Rec	1	3/9/2017 11:45:24 AM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	3/9/2017 11:45:24 AM	B41265
Toluene	ND	0.037		mg/Kg	1	3/9/2017 11:45:24 AM	B41265
Ethylbenzene	ND	0.037		mg/Kg	1	3/9/2017 11:45:24 AM	B41265
Xylenes, Total	0.093	0.073		mg/Kg	1	3/9/2017 11:45:24 AM	B41265
Surr: 4-Bromofluorobenzene	79.4	66.6-132		%Rec	1	3/9/2017 11:45:24 AM	B41265

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.

CLIENT: Blagg Engineering

Client Sample ID: TSP 6

Project: GCU #199E

Collection Date: 3/8/2017 2:10:00 PM

Lab ID: 1703436-006

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	40	30		mg/Kg	20	3/9/2017 12:26:04 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/9/2017 12:23:18 PM	30605
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 12:23:18 PM	30605
Surr: DNOP	105	70-130		%Rec	1	3/9/2017 12:23:18 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/9/2017 12:11:36 PM	G41265
Surr: BFB	91.0	54-150		%Rec	1	3/9/2017 12:11:36 PM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	3/9/2017 12:11:36 PM	B41265
Toluene	ND	0.035		mg/Kg	1	3/9/2017 12:11:36 PM	B41265
Ethylbenzene	ND	0.035		mg/Kg	1	3/9/2017 12:11:36 PM	B41265
Xylenes, Total	0.074	0.070		mg/Kg	1	3/9/2017 12:11:36 PM	B41265
Surr: 4-Bromofluorobenzene	78.5	66.6-132		%Rec	1	3/9/2017 12:11:36 PM	B41265

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 1703436

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP 7

Project: GCU #199E

Collection Date: 3/8/2017 2:12:00 PM

Lab ID: 1703436-007

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	3/9/2017 12:38:28 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/9/2017 12:45:09 PM	30605
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 12:45:09 PM	30605
Surr: DNOP	105	70-130		%Rec	1	3/9/2017 12:45:09 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	3/9/2017 12:37:50 PM	G41265
Surr: BFB	100	54-150		%Rec	1	3/9/2017 12:37:50 PM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/9/2017 12:37:50 PM	B41265
Toluene	ND	0.045		mg/Kg	1	3/9/2017 12:37:50 PM	B41265
Ethylbenzene	ND	0.045		mg/Kg	1	3/9/2017 12:37:50 PM	B41265
Xylenes, Total	ND	0.091		mg/Kg	1	3/9/2017 12:37:50 PM	B41265
Surr: 4-Bromofluorobenzene	77.6	66.6-132		%Rec	1	3/9/2017 12:37:50 PM	B41265

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 1703436

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP 8

Project: GCU #199E

Collection Date: 3/8/2017 2:14:00 PM

Lab ID: 1703436-008

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	3/9/2017 12:50:53 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	17	9.9		mg/Kg	1	3/9/2017 1:06:47 PM	30605
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/9/2017 1:06:47 PM	30605
Surr: DNOP	108	70-130		%Rec	1	3/9/2017 1:06:47 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	27	4.6		mg/Kg	1	3/9/2017 1:04:00 PM	G41265
Surr: BFB	278	54-150	S	%Rec	1	3/9/2017 1:04:00 PM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/9/2017 1:04:00 PM	B41265
Toluene	0.073	0.046		mg/Kg	1	3/9/2017 1:04:00 PM	B41265
Ethylbenzene	0.12	0.046		mg/Kg	1	3/9/2017 1:04:00 PM	B41265
Xylenes, Total	0.91	0.091		mg/Kg	1	3/9/2017 1:04:00 PM	B41265
Surr: 4-Bromofluorobenzene	92.0	66.6-132		%Rec	1	3/9/2017 1:04:00 PM	B41265

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 1703436

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP 9

Project: GCU #199E

Collection Date: 3/8/2017 2:18:00 PM

Lab ID: 1703436-009

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	31	30		mg/Kg	20	3/9/2017 1:28:06 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/9/2017 1:28:40 PM	30605
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/9/2017 1:28:40 PM	30605
Surr: DNOP	109	70-130		%Rec	1	3/9/2017 1:28:40 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	19	4.7		mg/Kg	1	3/9/2017 1:30:09 PM	G41265
Surr: BFB	248	54-150	S	%Rec	1	3/9/2017 1:30:09 PM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/9/2017 1:30:09 PM	B41265
Toluene	0.050	0.047		mg/Kg	1	3/9/2017 1:30:09 PM	B41265
Ethylbenzene	0.076	0.047		mg/Kg	1	3/9/2017 1:30:09 PM	B41265
Xylenes, Total	0.42	0.094		mg/Kg	1	3/9/2017 1:30:09 PM	B41265
Surr: 4-Bromofluorobenzene	87.2	66.6-132		%Rec	1	3/9/2017 1:30:09 PM	B41265

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 1703436

Date Reported: 3/13/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP 10

Project: GCU #199E

Collection Date: 3/8/2017 2:20:00 PM

Lab ID: 1703436-010

Matrix: SOIL

Received Date: 3/9/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	3/9/2017 1:40:31 PM	30611
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/9/2017 1:50:24 PM	30605
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/9/2017 1:50:24 PM	30605
Surr: DNOP	107	70-130		%Rec	1	3/9/2017 1:50:24 PM	30605
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	88	4.4		mg/Kg	1	3/9/2017 1:56:20 PM	G41265
Surr: BFB	449	54-150	S	%Rec	1	3/9/2017 1:56:20 PM	G41265
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.034	0.022		mg/Kg	1	3/9/2017 1:56:20 PM	B41265
Toluene	0.74	0.044		mg/Kg	1	3/9/2017 1:56:20 PM	B41265
Ethylbenzene	0.37	0.044		mg/Kg	1	3/9/2017 1:56:20 PM	B41265
Xylenes, Total	4.1	0.088		mg/Kg	1	3/9/2017 1:56:20 PM	B41265
Surr: 4-Bromofluorobenzene	91.9	66.6-132		%Rec	1	3/9/2017 1:56:20 PM	B41265

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 1703592

Date Reported: 3/15/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP-11

Project: GCU 199E

Collection Date: 3/10/2017 12:45:00 PM

Lab ID: 1703592-001

Matrix: MEOH (SOIL)

Received Date: 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/13/2017 11:49:34 AM	30664
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/13/2017 10:13:44 AM	30650
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	3/13/2017 10:13:44 AM	30650
Surr: DNOP	103	70-130		%Rec	1	3/13/2017 10:13:44 AM	30650
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	9.9	3.3		mg/Kg	1	3/13/2017 12:40:50 PM	30631
Surr: BFB	193	54-150	S	%Rec	1	3/13/2017 12:40:50 PM	30631
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	3/13/2017 12:40:50 PM	30631
Toluene	0.051	0.033		mg/Kg	1	3/13/2017 12:40:50 PM	30631
Ethylbenzene	0.041	0.033		mg/Kg	1	3/13/2017 12:40:50 PM	30631
Xylenes, Total	0.42	0.067		mg/Kg	1	3/13/2017 12:40:50 PM	30631
Surr: 4-Bromofluorobenzene	80.4	66.6-132		%Rec	1	3/13/2017 12:40:50 PM	30631

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 1703592

Date Reported: 3/15/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP-12

Project: GCU 199E

Collection Date: 3/10/2017 12:50:00 PM

Lab ID: 1703592-002

Matrix: MEOH (SOIL)

Received Date: 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/13/2017 12:01:58 PM	30664
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	16	9.7		mg/Kg	1	3/13/2017 10:35:31 AM	30650
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/13/2017 10:35:31 AM	30650
Surr: DNOP	104	70-130		%Rec	1	3/13/2017 10:35:31 AM	30650
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	24	20		mg/Kg	5	3/13/2017 9:43:05 AM	SG41332
Surr: BFB	121	54-150		%Rec	5	3/13/2017 9:43:05 AM	SG41332
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.098		mg/Kg	5	3/13/2017 9:43:05 AM	B41332
Toluene	ND	0.20		mg/Kg	5	3/13/2017 9:43:05 AM	B41332
Ethylbenzene	ND	0.20		mg/Kg	5	3/13/2017 9:43:05 AM	B41332
Xylenes, Total	1.1	0.39		mg/Kg	5	3/14/2017 1:50:03 PM	30654
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	5	3/13/2017 9:43:05 AM	B41332

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.

CLIENT: Blagg Engineering

Client Sample ID: TSP-13

Project: GCU 199E

Collection Date: 3/10/2017 1:00:00 PM

Lab ID: 1703592-003

Matrix: MEOH (SOIL)

Received Date: 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/13/2017 12:39:12 PM	30664
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	11	9.5		mg/Kg	1	3/13/2017 10:57:02 AM	30650
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/13/2017 10:57:02 AM	30650
Surr: DNOP	103	70-130		%Rec	1	3/13/2017 10:57:02 AM	30650
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/13/2017 10:06:36 AM	SG41332
Surr: BFB	103	54-150		%Rec	5	3/13/2017 10:06:36 AM	SG41332
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.088		mg/Kg	5	3/13/2017 10:06:36 AM	B41332
Toluene	ND	0.18		mg/Kg	5	3/13/2017 10:06:36 AM	B41332
Ethylbenzene	ND	0.18		mg/Kg	5	3/13/2017 10:06:36 AM	B41332
Xylenes, Total	0.51	0.35		mg/Kg	5	3/14/2017 5:46:09 PM	30654
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	5	3/13/2017 10:06:36 AM	B41332

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 1703592

Date Reported: 3/15/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP-14

Project: GCU 199E

Collection Date: 3/10/2017 1:10:00 PM

Lab ID: 1703592-004

Matrix: MEOH (SOIL)

Received Date: 3/11/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	3/13/2017 12:51:37 PM	30664
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	10	9.8		mg/Kg	1	3/13/2017 11:18:49 AM	30650
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/13/2017 11:18:49 AM	30650
Surr: DNOP	107	70-130		%Rec	1	3/13/2017 11:18:49 AM	30650
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	27	18		mg/Kg	5	3/13/2017 10:30:12 AM	SG41332
Surr: BFB	129	54-150		%Rec	5	3/13/2017 10:30:12 AM	SG41332
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.088		mg/Kg	5	3/13/2017 10:30:12 AM	B41332
Toluene	ND	0.18		mg/Kg	5	3/13/2017 10:30:12 AM	B41332
Ethylbenzene	ND	0.18		mg/Kg	5	3/13/2017 10:30:12 AM	B41332
Xylenes, Total	1.0	0.35		mg/Kg	5	3/14/2017 6:12:28 PM	30654
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	5	3/13/2017 10:30:12 AM	B41332

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

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87
BLOOMFIELD, NM 87413**

Phone #: **(505) 632-1199**

email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation:
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time: **SAME DAY**

Standard Rush

Project Name: **GCU # 199E**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample Temperature: **6**



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + TPH (802.1B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)
3/8/17	1345	SOIL	TSP 1	4oz-1	COOL	7001	✓	✓										✓		5	
3/8/17	1355		TSP 2			7002	✓	✓										✓		5	
3/8/17	1400		TSP 3			7003	✓	✓										✓		5	
3/8/17	1404		TSP 4			7004	✓	✓										✓		5	
3/8/17	1407		TSP 5			7005	✓	✓										✓		5	
3/8/17	1410		TSP 6			7006	✓	✓										✓		5	
3/8/17	1412		TSP 7			7007	✓	✓										✓		5	
3/8/17	1414		TSP 8			7008	✓	✓										✓		5	
3/8/17	1418		TSP 9			7009	✓	✓										✓		5	
3/8/17	1420		TSP 10			7010	✓	✓										✓		5	

Date: **3/8/17** Time: **1710** Relinquished by: *[Signature]*

Date: **3/8/17** Time: **1952** Relinquished by: *[Signature]*

Received by: *[Signature]* Date: **3/8/17** Time: **1710**

Received by: *[Signature]* Date: **03/09/17** Time: **1952**

Remarks: **BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE;**

CONTACT: **STEVE MOSKAL / VANCE HIXON**

VID: **VHIXONEVRM**

Reference # **P - 806** WBS Element **L1-0018M-E:24174**

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

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87
BLOOMFIELD, NM 87413**

Phone #: **(505) 632-1199**

email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation:
 NELAP Other _____

EDD (Type) _____

Turn-Around Time: SAME DAY

Standard Rush

Project Name: **GCU # 199E**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample Temperature: 29



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8082 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (sol - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)
3/10/17	1245	SOIL	TSP 11	4oz. - 1	COOL	-001	✓		✓									✓		5	
3/10/17	1250	SOIL	TSP 12	4oz. - 1	COOL	-002	✓		✓									✓		5	
3/10/17	1300	SOIL	TSP 13	4oz. - 1	COOL	-003	✓		✓									✓		5	
3/10/17	1310	SOIL	TSP 14	4oz. - 1	COOL	-004	✓		✓									✓		5	

Date: 3/10/17 Time: 1554 Relinquished by: [Signature]

Date: 3/10/17 Time: 1757 Relinquished by: [Signature]

Received by: [Signature] Date: 3/10/17 Time: 1554

Received by: [Signature] Date: 3/10/17 Time: 1757

Remarks: **BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE**

CONTACT: **STEVE MOSKAL / VANCE HIXON**

VID: **VHIXONEVRM**

Reference # P - 806 WBS Element L1-0018M-E:24174

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703436

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	MB-30611	SampType:	mbk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	30611	RunNo:	41264					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1293783	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30611	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	30611	RunNo:	41264					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1293784	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	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#: 1703436

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID	LCS-30605	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30605	RunNo:	41254					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1292392	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.9	63.8	116			
Surr: DNOP	4.9		5.000		98.3	70	130			

Sample ID	MB-30605	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30605	RunNo:	41254					
Prep Date:	3/9/2017	Analysis Date:	3/9/2017	SeqNo:	1292393	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	70	130			

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#: 1703436

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID RB	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: G41265	RunNo: 41265								
Prep Date:	Analysis Date: 3/9/2017	SeqNo: 1293368 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	860		1000		86.0	54	150			

Sample ID 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G41265	RunNo: 41265								
Prep Date:	Analysis Date: 3/9/2017	SeqNo: 1293369 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	76.4	125			
Surr: BFB	1000		1000		101	54	150			

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#: 1703436

13-Mar-17

Client: Blagg Engineering

Project: GCU #199E

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B41265		RunNo: 41265							
Prep Date:	Analysis Date: 3/9/2017		SeqNo: 1293374		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	0.95		1.000		94.5	66.6	132			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B41265		RunNo: 41265							
Prep Date:	Analysis Date: 3/9/2017		SeqNo: 1293375		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	75.2	115			
Toluene	1.0	0.050	1.000	0	100	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	102	78.9	117			
Xylenes, Total	3.2	0.10	3.000	0	105	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	66.6	132			

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

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1703436**

RcptNo: **1**

Received by/date: AT 03/09/17

Logged By: **Anne Thorne** 3/9/2017 7:10:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 3/9/2017 7:48:22 AM *Anne Thorne*

Reviewed By: *AT* 03/09/17

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

- 16. 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: _____

17. Additional remarks:

Cooler Information

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703592

15-Mar-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	MB-30664	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	30664	RunNo:	41329					
Prep Date:	3/13/2017	Analysis Date:	3/13/2017	SeqNo:	1296016	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30664	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	30664	RunNo:	41329					
Prep Date:	3/13/2017	Analysis Date:	3/13/2017	SeqNo:	1296017	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	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#: 1703592
15-Mar-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID	LCS-30650	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	30650	RunNo:	41323					
Prep Date:	3/13/2017	Analysis Date:	3/13/2017	SeqNo:	1294853	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.8	63.8	116			
Surr: DNOP	4.8		5.000		95.8	70	130			

Sample ID	MB-30650	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	30650	RunNo:	41323					
Prep Date:	3/13/2017	Analysis Date:	3/13/2017	SeqNo:	1294854	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	70	130			

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#: 1703592

15-Mar-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	MB-30631	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30631	RunNo:	41331					
Prep Date:	3/10/2017	Analysis Date:	3/13/2017	SeqNo:	1295376	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	800		1000		79.9	54	150			

Sample ID	LCS-30631	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30631	RunNo:	41331					
Prep Date:	3/10/2017	Analysis Date:	3/13/2017	SeqNo:	1295377	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	76.4	125			
Surr: BFB	1000		1000		103	54	150			

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	SG41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295411	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	880		1000		88.0	54	150			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	SG41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295412	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	76.4	125			
Surr: BFB	960		1000		96.1	54	150			

Sample ID	1703592-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-12	Batch ID:	SG41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295413	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	130	20	97.89	24.32	111	61.3	150			
Surr: BFB	5000		3916		128	54	150			

Sample ID	1703592-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-12	Batch ID:	SG41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295414	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1703592

15-Mar-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	1703592-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	TSP-12	Batch ID:	SG41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295414	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	130	20	97.89	24.32	106	61.3	150	3.24	20	
Surr: BFB	4900		3916		126	54	150	0	0	

Sample ID	MB-30654	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	30654	RunNo:	41364					
Prep Date:	3/13/2017	Analysis Date:	3/14/2017	SeqNo:	1296623	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	750		1000		74.8	54	150			

Sample ID	LCS-30654	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	30654	RunNo:	41364					
Prep Date:	3/13/2017	Analysis Date:	3/14/2017	SeqNo:	1296624	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.1	54	150			

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#: 1703592

15-Mar-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID MB-30631	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 30631	RunNo: 41331								
Prep Date: 3/10/2017	Analysis Date: 3/13/2017	SeqNo: 1295395			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	0.89		1.000		88.9	66.6	132			

Sample ID LCS-30631	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 30631	RunNo: 41331								
Prep Date: 3/10/2017	Analysis Date: 3/13/2017	SeqNo: 1295396			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	66.6	132			

Sample ID RB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: B41332	RunNo: 41332								
Prep Date:	Analysis Date: 3/13/2017	SeqNo: 1295442			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								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	66.6	132			

Sample ID 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: B41332	RunNo: 41332								
Prep Date:	Analysis Date: 3/13/2017	SeqNo: 1295443			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	66.6	132			

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#: 1703592
15-Mar-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID	1703592-003AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-13	Batch ID:	B41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295444	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	4.0	0.088	3.502	0	114	61.5	138			
Toluene	4.1	0.18	3.502	0.07409	115	71.4	127			
Ethylbenzene	4.2	0.18	3.502	0.04331	118	70.9	132			
Surr: 4-Bromofluorobenzene	4.3		3.502		122	66.6	132			

Sample ID	1703592-003AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	TSP-13	Batch ID:	B41332	RunNo:	41332					
Prep Date:		Analysis Date:	3/13/2017	SeqNo:	1295445	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.7	0.088	3.502	0	107	61.5	138	6.74	20	
Toluene	3.9	0.18	3.502	0.07409	111	71.4	127	4.12	20	
Ethylbenzene	4.0	0.18	3.502	0.04331	113	70.9	132	3.55	20	
Surr: 4-Bromofluorobenzene	4.3		3.502		123	66.6	132	0	0	

Sample ID	MB-30654	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	30654	RunNo:	41364					
Prep Date:	3/13/2017	Analysis Date:	3/14/2017	SeqNo:	1296641	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.83		1.000		83.0	66.6	132			

Sample ID	LCS-30654	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	30654	RunNo:	41364					
Prep Date:	3/13/2017	Analysis Date:	3/14/2017	SeqNo:	1296642	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		83.7	66.6	132			

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
 4901 Hawkins NE
 Albuquerque, NJ 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1703592** RptNo: **1**

Received by/date: *[Signature]* **3/11/17**
 Logged By: **Lindsay Mangin** 3/11/2017 8:00:00 AM
 Completed By: **Lindsay Mangin** 3/11/2017 8:43:48 AM
 Reviewed By: *[Signature]* **03/13/17**

[Signature]
[Signature]

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0°C to 5.0°C? Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

- 16. 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: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.9	Good	Yes			

VADOSE ZONE

LABORATORY

RESULTS

Analytical Report

Lab Order 1704964

Date Reported: 4/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TSP-VZ @ 0.25'-1' (east)

Project: GCU 199E

Collection Date: 4/20/2017 9:20:00 AM

Lab ID: 1704964-001

Matrix: SOIL

Received Date: 4/21/2017 7:38:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	4/25/2017 12:51:22 PM	31409
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/25/2017 4:45:14 PM	31395
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/25/2017 4:45:14 PM	31395
Surr: DNOP	104	70-130		%Rec	1	4/25/2017 4:45:14 PM	31395
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/24/2017 2:54:11 PM	31376
Surr: BFB	89.4	54-150		%Rec	1	4/24/2017 2:54:11 PM	31376
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/24/2017 2:54:11 PM	31376
Toluene	ND	0.049		mg/Kg	1	4/24/2017 2:54:11 PM	31376
Ethylbenzene	ND	0.049		mg/Kg	1	4/24/2017 2:54:11 PM	31376
Xylenes, Total	ND	0.098		mg/Kg	1	4/24/2017 2:54:11 PM	31376
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	4/24/2017 2:54:11 PM	31376

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#: 1704964
26-Apr-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID	MB-31409	SampType:	mbk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	31409	RunNo:	42344					
Prep Date:	4/25/2017	Analysis Date:	4/25/2017	SeqNo:	1331679	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31409	SampType:	ics	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	31409	RunNo:	42344					
Prep Date:	4/25/2017	Analysis Date:	4/25/2017	SeqNo:	1331680	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

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#: 1704964

26-Apr-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	LCS-31408	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31408	RunNo:	42335					
Prep Date:	4/25/2017	Analysis Date:	4/25/2017	SeqNo:	1330932	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.4	70	130			

Sample ID	MB-31408	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31408	RunNo:	42335					
Prep Date:	4/25/2017	Analysis Date:	4/25/2017	SeqNo:	1330933	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-31395	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	31395	RunNo:	42335					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331306	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	96.3	63.8	116			
Surr: DNOP	4.6		5.000		92.8	70	130			

Sample ID	MB-31395	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	31395	RunNo:	42335					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331307	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

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#: 1704964
26-Apr-17

Client: Blagg Engineering
Project: GCU 199E

Sample ID MB-31376	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 31376	RunNo: 42321								
Prep Date: 4/21/2017	Analysis Date: 4/24/2017	SeqNo: 1330445	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		113	54	150			

Sample ID LCS-31376	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 31376	RunNo: 42321								
Prep Date: 4/21/2017	Analysis Date: 4/24/2017	SeqNo: 1330446	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.4	76.4	125			
Surr: BFB	1200		1000		119	54	150			

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#: 1704964

26-Apr-17

Client: Blagg Engineering

Project: GCU 199E

Sample ID	MB-31376	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	31376	RunNo:	42321					
Prep Date:	4/21/2017	Analysis Date:	4/24/2017	SeqNo:	1330462	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	1.4		1.000		136	66.6	132			S

Sample ID	LCS-31376	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	31376	RunNo:	42321					
Prep Date:	4/21/2017	Analysis Date:	4/24/2017	SeqNo:	1330463	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.8	80	120			
Toluene	0.89	0.050	1.000	0	88.6	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.1	80	120			
Xylenes, Total	2.5	0.10	3.000	0	83.0	80	120			
Surr: 4-Bromofluorobenzene	1.4		1.000		140	66.6	132			S

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 |

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1704964

RcptNo: 1

Received By: **Lindsay Mangin** 4/21/2017 7:38:00 AM
 Completed By: **Ashley Gallegos** 4/21/2017 8:34:45 AM
 Reviewed By:  04/21/17




Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. 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)

- 16. 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	1.3	Good	Yes			