OIL CONS. DIV DIST. 3

JUL 08 2016

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 242E	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004523901

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
K	24	28N	12W	1,600	South	1,455	West	

Latitude 36.64497° **Longitude** -108.06758°

NATURE OF RELEASE

Type of Release: Natural Gas Condensate and other production fluids	Volume of Release: Unknown	Volume Recovered: none
Source of Release: Failed sidewall of BGT	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: May 1, 2014, 11:50AM
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Closure sampling on 5/1/14 of a below grade tank (BGT) indicated a release had occurred. On April 14, 2016 remediation of the site began. It was determined that the release was not likely due to the BGT, but likely a former earthen pit that had gone unrecorded. The hydrocarbon impacts were excavated and transported off site for landfarm treatment.

Describe Area Affected and Cleanup Action Taken.* The former earthen pit impacts were fully delineated and excavated. A total of 6,327 cubic yards of soil was excavated and transported off site for landfarm treatment. Confirmation laboratory samples were collected from each excavation section and witnessed by the regulatory agencies. A field report, site diagram and laboratory results are attached.

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: 7/26/2016	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: —	Attached ☐
Date: June 30, 2016 Phone: 505-326-9497		

* Attach Additional Sheets If Necessary

NJK1516255463

95

BP America
GCU 242E
(K) Sec 24 – T28N – R12W
San Juan County, New Mexico
API: 30-045-23901

Summary Record of Impact Remediation

May 1, 2014 Impacts discovered during closure of a 95 barrel below grade tank (BGT). Composite sample of soils immediately below tank (5' below surface grade) tested total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015 at 500 mg/Kg (diesel range organics) and 70 mg/Kg (gasoline range organics). TPH by U.S EPA Method 418.1 tested at 900 mg/Kg. The BGT appeared to have good integrity and the original source of impacts was identified as historical (i.e., discharges to unlined pits, a practice approved by all regulatory agencies at the time the well was drilled in 1980).

Site NMOCD/BLM closure standard determined at 100 ppm TPH based on:

Horizontal Distance to Dry Wash > 1,000 feet (0 points)
Nearest Water Well > 1,000 feet (0 points)
Depth to Groundwater < 50 feet (20 points)

April 14, 2016 Begin site remediation via excavation with trackhoe.

April 15, 2016 Conduct initial closure sampling on the south center and exposed base of the current excavation. These samples pass on TPH, Benzene, Total BTEX and Chloride.

April 19, 2016 Conduct closure sampling on the west center exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

April 21, 2016 Sample impacts from a hydro-vac hole (labeled HV-3) advanced at a location west of the remedial excavation, adjacent to the paved access road. Lab TPH tested at 65 mg/Kg.

April 22, 2016 Conduct closure sampling on the south sidewall, east side and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

April 26, 2016 Conduct closure sampling on the east sidewall and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

April 27, 2016 Conduct closure sampling on the north sidewall and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

April 28, 2016 Conduct closure sampling on the north sidewall (west end) and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

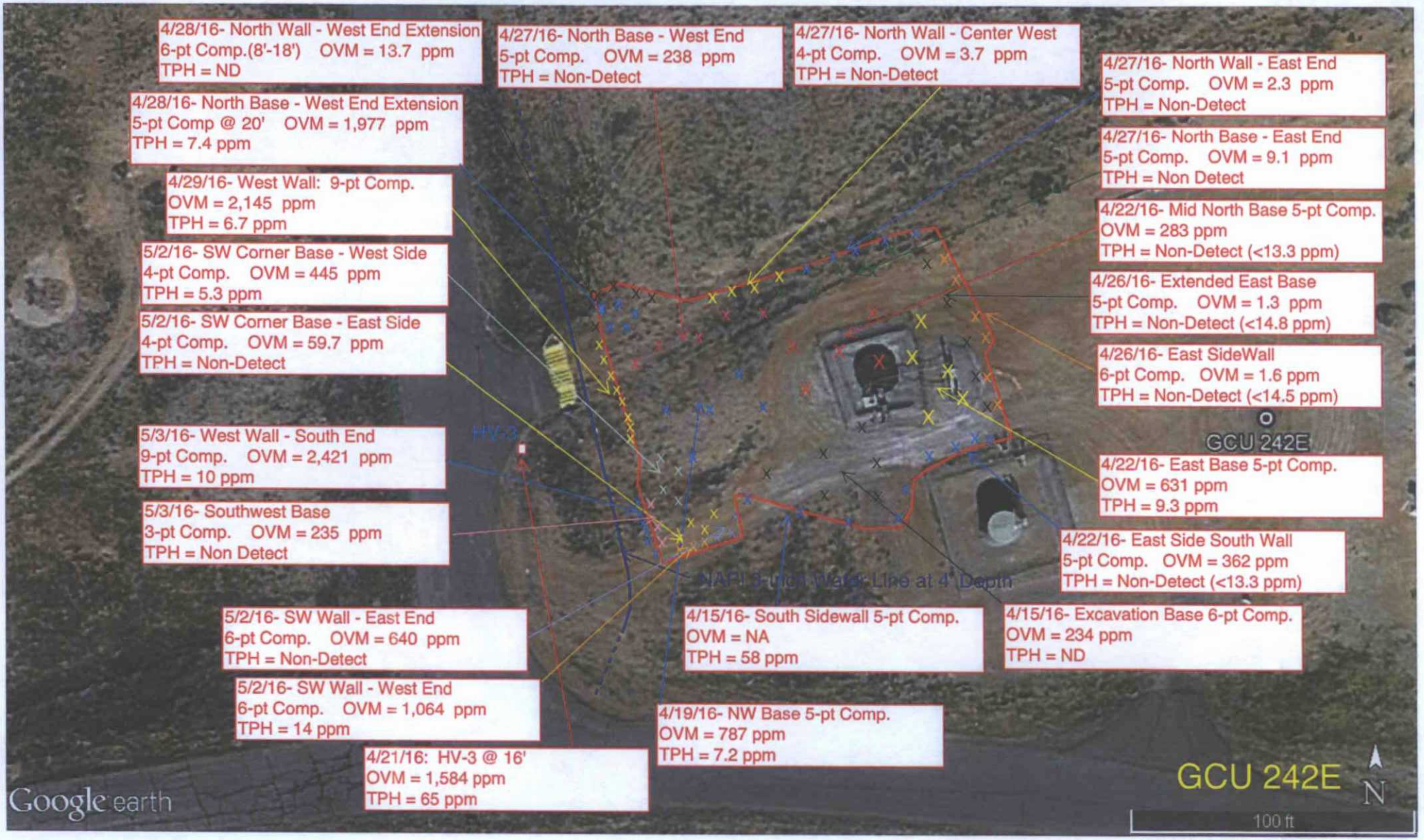
April 29, 2016 Conduct closure sampling on the west sidewall (north end). All samples pass on TPH, Benzene, Total BTEX and Chloride.

May 2, 2016 Conduct closure sampling on the southwest wall and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

May 3, 2016 Conduct closure sampling on the west sidewall (south end) and exposed base of the current excavation. All samples pass on TPH, Benzene, Total BTEX and Chloride.

May 4, 2016 Based on cumulative lab test results, regulatory agencies (BLM, NMOCD and NNEPA) approve final closure and backfilling of remedial excavation. Final excavation size approximately 140' x 95' x 18' average depth.

May 6, 2016 Complete backfilling operations. Total volume transported to Envirotech Landfarm = 6,327 cubic yards (Form C-138 Attached).


4/28/16- North Wall - West End Extension
6-pt Comp.(8'-18') OVM = 13.7 ppm
TPH = ND
4/27/16- North Base - West End
5-pt Comp. OVM = 238 ppm
TPH = Non-Detect
4/27/16- North Wall - Center West
4-pt Comp. OVM = 3.7 ppm
TPH = Non-Detect
4/27/16- North Wall - East End
5-pt Comp. OVM = 2.3 ppm
TPH = Non-Detect
4/28/16- North Base - West End Extension
5-pt Comp @ 20' OVM = 1,977 ppm
TPH = 7.4 ppm
4/27/16- North Base - East End
5-pt Comp. OVM = 9.1 ppm
TPH = Non Detect
4/29/16- West Wall: 9-pt Comp.
OVM = 2,145 ppm
TPH = 6.7 ppm
4/22/16- Mid North Base 5-pt Comp.
OVM = 283 ppm
TPH = Non-Detect (<13.3 ppm)
5/2/16- SW Corner Base - West Side
4-pt Comp. OVM = 445 ppm
TPH = 5.3 ppm
4/26/16- Extended East Base
5-pt Comp. OVM = 1.3 ppm
TPH = Non-Detect (<14.8 ppm)
5/2/16- SW Corner Base - East Side
4-pt Comp. OVM = 59.7 ppm
TPH = Non-Detect
4/26/16- East SideWall
6-pt Comp. OVM = 1.6 ppm
TPH = Non-Detect (<14.5 ppm)
HV-3
GCU 242E
5/3/16- West Wall - South End
9-pt Comp. OVM = 2,421 ppm
TPH = 10 ppm
4/22/16- East Base 5-pt Comp.
OVM = 631 ppm
TPH = 9.3 ppm
5/3/16- Southwest Base
3-pt Comp. OVM = 235 ppm
TPH = Non Detect
4/22/16- East Side South Wall
5-pt Comp. OVM = 362 ppm
TPH = Non-Detect (<13.3 ppm)
NAPL's Light Water Like at 4' Depth
5/2/16- SW Wall - East End
6-pt Comp. OVM = 640 ppm
TPH = Non-Detect
4/15/16- South Sidewall 5-pt Comp.
OVM = NA
TPH = 58 ppm
4/15/16- Excavation Base 6-pt Comp.
OVM = 234 ppm
TPH = ND
5/2/16- SW Wall - West End
6-pt Comp. OVM = 1,064 ppm
TPH = 14 ppm
4/19/16- NW Base 5-pt Comp.
OVM = 787 ppm
TPH = 7.2 ppm
4/21/16: HV-3 @ 16'
OVM = 1,584 ppm
TPH = 65 ppm
Google earth
GCU 242E
N
100 ft

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 19, 2016

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

RE: GCU #242E OrderNo.: 1604704

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/16/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #242E
Lab ID: 1604704-004

Client Sample ID: 6PC - EB @ 12' - 17'
Collection Date: 4/15/2016 2:20:00 PM
Matrix: MEOH (SOIL) **Received Date:** 4/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/18/2016 11:42:02 AM	24860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/18/2016 11:44:39 AM	24823
Surr: DNOP	86.1	70-130		%Rec	1	4/18/2016 11:44:39 AM	24823
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	4/18/2016 11:05:30 AM	24836
Surr: BFB	95.8	80-120		%Rec	1	4/18/2016 11:05:30 AM	24836
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.036	0.027		mg/Kg	1	4/18/2016 11:05:30 AM	24836
Toluene	ND	0.054		mg/Kg	1	4/18/2016 11:05:30 AM	24836
Ethylbenzene	ND	0.054		mg/Kg	1	4/18/2016 11:05:30 AM	24836
Xylenes, Total	ND	0.11		mg/Kg	1	4/18/2016 11:05:30 AM	24836
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	4/18/2016 11:05:30 AM	24836

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
Project: GCU #242E
Lab ID: 1604704-005 **Matrix:** MEOH (SOIL)

Client Sample ID: 5PC - SSW @ 10' - 13'
Collection Date: 4/15/2016 2:35:00 PM
Received Date: 4/16/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/18/2016 11:54:26 AM	24860
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	12	9.3		mg/Kg	1	4/18/2016 12:06:13 PM	24823
Surr: DNOP	87.4	70-130		%Rec	1	4/18/2016 12:06:13 PM	24823
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	46	19		mg/Kg	5	4/18/2016 11:28:56 AM	24836
Surr: BFB	118	80-120		%Rec	5	4/18/2016 11:28:56 AM	24836
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.095		mg/Kg	5	4/18/2016 11:28:56 AM	24836
Toluene	0.57	0.19		mg/Kg	5	4/18/2016 11:28:56 AM	24836
Ethylbenzene	0.22	0.19		mg/Kg	5	4/18/2016 11:28:56 AM	24836
Xylenes, Total	2.1	0.38		mg/Kg	5	4/18/2016 11:28:56 AM	24836
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	5	4/18/2016 11:28:56 AM	24836

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#: **1604704**

19-Apr-16

Client: Blagg Engineering
Project: GCU #242E

Sample ID	**MB-24860**	SampType: **MBLK**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **24860**		RunNo: **33628**					
Prep Date:	**4/18/2016**	Analysis Date: **4/18/2016**		SeqNo: **1035209**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-24860**	SampType: **LCS**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **24860**		RunNo: **33628**					
Prep Date:	**4/18/2016**	Analysis Date: **4/18/2016**		SeqNo: **1035210**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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#: **1604704**

19-Apr-16

Client: Blagg Engineering
Project: GCU #242E

Sample ID **LCS-24787**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **24787**			RunNo: **33593**					
Prep Date: **4/13/2016**	Analysis Date: **4/18/2016**			SeqNo: **1033599**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.8	70	130			

Sample ID **LCS-24823**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **24823**			RunNo: **33593**					
Prep Date: **4/18/2016**	Analysis Date: **4/18/2016**			SeqNo: **1033600**		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	93.6	65.8	136			
Surr: DNOP	4.0		5.000		80.9	70	130			

Sample ID **MB-24787**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **24787**			RunNo: **33593**					
Prep Date: **4/13/2016**	Analysis Date: **4/18/2016**			SeqNo: **1033601**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		95.1	70	130			

Sample ID **MB-24823**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **24823**			RunNo: **33593**					
Prep Date: **4/18/2016**	Analysis Date: **4/18/2016**			SeqNo: **1033602**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.4		10.00		84.4	70	130			

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#: **1604704**

19-Apr-16

Client: Blagg Engineering
Project: GCU #242E

Sample ID **MB-24836**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **24836**	RunNo: **33600**
Prep Date: **4/15/2016**	Analysis Date: **4/18/2016**	SeqNo: **1033974** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	80	120			

Sample ID **LCS-24836**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **24836**	RunNo: **33600**
Prep Date: **4/15/2016**	Analysis Date: **4/18/2016**	SeqNo: **1033975** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.8	80	120			
Surr: BFB	1000		1000		100	80	120			

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#: **1604704**

19-Apr-16

Client: Blagg Engineering
Project: GCU #242E

Sample ID **MB-24836**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **24836**	RunNo: **33600**
Prep Date: **4/15/2016**	Analysis Date: **4/18/2016**	SeqNo: **1034018** 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	0.96		1.000		96.3	80	120			

Sample ID **LCS-24836**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **24836**	RunNo: **33600**
Prep Date: **4/15/2016**	Analysis Date: **4/18/2016**	SeqNo: **1034019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.5	75.3	123			
Toluene	0.87	0.050	1.000	0	87.1	80	124			
Ethylbenzene	0.87	0.050	1.000	0	87.4	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

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

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: 1604704 RcptNo: 1

Received by/date: 04/16/16

Logged By: Lindsay Mangin 4/16/2016 8:00:00 AM

Completed By: Lindsay Mangin 4/16/2016 10:10:11 AM

Reviewed By: 04/16/16

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
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 ☐	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	2.7	Good	Yes			

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 SAME DAY

Project Name: GCU # 242E

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.7

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. 1602724	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO) NV	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)
4/15/16	1325	SOIL	SW @ 9'	4 oz. - 1	Cool	-001	✓		✓									✓		✓		
4/15/16	1328	SOIL	SW @ 7'	4 oz. - 1	Cool	-002	✓		✓									✓		✓		
4/15/16	1343	SOIL	SSE @ 12'	4 oz. - 1	Cool	-003	✓		✓									✓		✓		
4/15/16	1420	SOIL	6PC - EB @ 12' - 17'	4 oz. - 1	Cool	-004	✓		✓									✓			6	
4/15/16	1435	SOIL	5PC - SSW @ 10' - 13'	4 oz. - 1	Cool	-005	✓		✓									✓			5	

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/15/16	1707			4/15/16	1707
4/15/16	1741			4/16/16	0800

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

	Vance Hixon	Steve Moskal	John Ritchie
VID:	VHIXONEVB2	VMOS6HQFEC	VRITCJWFEC
Reference #			

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 21, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 632-1199
FAX (505) 632-3903

RE: GCU 242E OrderNo.: 1604846

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/20/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1604846**
Date Reported: **4/21/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604846-001 **Matrix:** SOIL

Client Sample ID: NW Base 5-pt @ 17'
Collection Date: 4/19/2016 1:28:00 PM
Received Date: 4/20/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	43	30		mg/Kg	20	4/20/2016 11:05:41 AM	24914
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/20/2016 11:50:58 AM	24895
Surr: DNOP	74.1	70-130		%Rec	1	4/20/2016 11:50:58 AM	24895
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.2	4.8		mg/Kg	1	4/20/2016 9:52:27 AM	24879
Surr: BFB	109	80-120		%Rec	1	4/20/2016 9:52:27 AM	24879
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.043	0.024		mg/Kg	1	4/20/2016 9:52:27 AM	24879
Toluene	0.078	0.048		mg/Kg	1	4/20/2016 9:52:27 AM	24879
Ethylbenzene	ND	0.048		mg/Kg	1	4/20/2016 9:52:27 AM	24879
Xylenes, Total	0.24	0.096		mg/Kg	1	4/20/2016 9:52:27 AM	24879
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	4/20/2016 9:52:27 AM	24879

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#: **1604846**

21-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-24914**	SampType: **MBLK**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **24914**		RunNo: **33686**					
Prep Date:	**4/20/2016**	Analysis Date: **4/20/2016**		SeqNo: **1037587**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-24914**	SampType: **LCS**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **24914**		RunNo: **33686**					
Prep Date:	**4/20/2016**	Analysis Date: **4/20/2016**		SeqNo: **1037588**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	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#: **1604846**

21-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-24895**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**24895**	RunNo:	**33652**
Prep Date:	**4/20/2016**	Analysis Date:	**4/20/2016**	SeqNo:	**1036426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.4		10.00		74.0	70	130			

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#: **1604846**

21-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-24879**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **24879**	RunNo: **33661**
Prep Date: **4/19/2016**	Analysis Date: **4/20/2016**	SeqNo: **1037062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.1	80	120			

Sample ID **LCS-24879**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **24879**	RunNo: **33661**
Prep Date: **4/19/2016**	Analysis Date: **4/20/2016**	SeqNo: **1037063** 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	98.3	80	120			
Surr: BFB	1000		1000		102	80	120			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R33661**	RunNo: **33661**
Prep Date:	Analysis Date: **4/20/2016**	SeqNo: **1037085** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.2	80	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R33661**	RunNo: **33661**
Prep Date:	Analysis Date: **4/20/2016**	SeqNo: **1037086** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	80	120			

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#: **1604846**

21-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-24879**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **24879**	RunNo: **33661**
Prep Date: **4/19/2016**	Analysis Date: **4/20/2016**	SeqNo: **1037109** 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	0.97		1.000		97.1	80	120			

Sample ID **LCS-24879**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **24879**	RunNo: **33661**
Prep Date: **4/19/2016**	Analysis Date: **4/20/2016**	SeqNo: **1037110** 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	101	75.3	123			
Toluene	0.94	0.050	1.000	0	93.8	80	124			
Ethylbenzene	0.88	0.050	1.000	0	88.4	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.7	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

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

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: 1604846 RcptNo: 1

Received by/date: AT 04/20/16

Logged By: Anne Thorne 4/20/2016 7:30:00 AM Anne Thorne

Completed By: Anne Thorne 4/20/2016 Anne Thorne

Reviewed By: JA 04/20/16

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	1.4	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

ent: BP AMERICA

BLAGG ENGINEERING INC.

ailing Address:

one #: 505-320-1183

ail or Fax#:

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

creditation: NELAP ☐ Other

EDD (Type)

Turn-Around Time: ASAP

☐ Standard ☒ Rush SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1+2.F+1.0=1.7

Date	Time	Matrix	Sample Request ID	Container Type and # (04/20/16 AK)	Preservative Type	HEAL No.
4/2016	1328	SOIL	NW BASE 5-PT @ 17'	4 oz x 1 MeOH Kd	COOL	-001

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE				Air Bubbles (Y or N)
X		X									X				

Date	Time	Relinquished by:	Received by:	Date	Time
4/2016	1725	Jodd Blagg	Christine Walker	4/19/16	1725
4/19	1849	Christine Walker		04/20/16	0730

Remarks: BILL BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 26, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 632-1199
FAX (505) 632-3903

RE: GCU 242E OrderNo.: 1604976

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/22/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1604976**
Date Reported: **4/26/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604976-001
Matrix: MEOH (SOIL)

Client Sample ID: HV-3@16'
Collection Date: 4/21/2016 3:42:00 PM
Received Date: 4/22/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/22/2016 3:06:25 PM	24946
Surr: DNOP	71.1	70-130		%Rec	1	4/22/2016 3:06:25 PM	24946
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	65	3.5		mg/Kg	1	4/22/2016 1:46:00 PM	24930
Surr: BFB	243	80-120	S	%Rec	1	4/22/2016 1:46:00 PM	24930
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.34	0.017		mg/Kg	1	4/22/2016 1:46:00 PM	24930
Toluene	1.8	0.035		mg/Kg	1	4/22/2016 1:46:00 PM	24930
Ethylbenzene	0.31	0.035		mg/Kg	1	4/22/2016 1:46:00 PM	24930
Xylenes, Total	2.7	0.070		mg/Kg	1	4/22/2016 1:46:00 PM	24930
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	1	4/22/2016 1:46:00 PM	24930

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#: **1604976**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **LCS-24946**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**						
Client ID: **LCSS**	Batch ID: **24946**			RunNo: **33715**						
Prep Date: **4/22/2016**	Analysis Date: **4/22/2016**			SeqNo: **1039133**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.9	65.8	136			
Surr: DNOP	3.6		5.000		72.4	70	130			

Sample ID **MB-24946**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**						
Client ID: **PBS**	Batch ID: **24946**			RunNo: **33715**						
Prep Date: **4/22/2016**	Analysis Date: **4/22/2016**			SeqNo: **1039134**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.1		10.00		70.8	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#: **1604976**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-24930**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **24930**	RunNo: **33721**
Prep Date: **4/21/2016**	Analysis Date: **4/22/2016**	SeqNo: **1038988** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.3	80	120			

Sample ID **LCS-24930**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **24930**	RunNo: **33721**
Prep Date: **4/21/2016**	Analysis Date: **4/22/2016**	SeqNo: **1038989** 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	97.9	80	120			
Surr: BFB	1000		1000		103	80	120			

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#: **1604976**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-24930**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **24930**	RunNo: **33721**
Prep Date: **4/21/2016**	Analysis Date: **4/22/2016**	SeqNo: **1039000** 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	0.96		1.000		95.8	80	120			

Sample ID **LCS-24930**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **24930**	RunNo: **33721**
Prep Date: **4/21/2016**	Analysis Date: **4/22/2016**	SeqNo: **1039001** 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	109	75.3	123			
Toluene	1.0	0.050	1.000	0	101	80	124			
Ethylbenzene	0.96	0.050	1.000	0	95.5	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	94.3	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

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

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: 1604976 RcptNo: 1

Received by/date: JA 04/22/16

Logged By: Joe Archuleta 4/22/2016 7:45:00 AM JEA

Completed By: Joe Archuleta 4/22/2016 8:06:26 AM JEA

Reviewed By: JO 04/22/16

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	1.2	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: BP America

Blagg Engineering

Mailing Address:

Phone #: 505-320-1183

Email or Fax#:

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

Accreditation: (NELAP) ☐ Other ____

EDD (Type) ____

Turn-Around Time: ☐ Standard ☒ Rush 2 DAY (By Monday 4/25)

Project Name: GCU 242E

Project #:

Project Manager: J. Blagg

Sampler: J. Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.2

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1604976
4/16	1542	SOIL	HV-3 @ 16'	4oz x1	cool	-001

Analysis Request

BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO ~~/ MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)						Air Bubbles (Y or N)
X		X														

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/21/16	1620	Jeff Blagg	Christine Walker	4/21/16	1620
4/21/16	1743	Christine Walker	Jac. Agnew	04/22/16	0745

Remarks: Bill BP
contact: Steve Moscal
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 26, 2016

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

RE: GCU 242E OrderNo.: 1604A30

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/23/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604A30-001 **Matrix:** MEOH (SOIL)

Client Sample ID: East Side South Wall 5pt 10'-18'
Collection Date: 4/22/2016 2:15:00 PM
Received Date: 4/23/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/25/2016 11:38:04 AM	24978
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/25/2016 10:25:55 AM	24971
Surr: DNOP	105	70-130		%Rec	1	4/25/2016 10:25:55 AM	24971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/25/2016 9:57:52 AM	24955
Surr: BFB	96.1	80-120		%Rec	1	4/25/2016 9:57:52 AM	24955
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.073	0.020		mg/Kg	1	4/25/2016 9:57:52 AM	24955
Toluene	0.12	0.040		mg/Kg	1	4/25/2016 9:57:52 AM	24955
Ethylbenzene	ND	0.040		mg/Kg	1	4/25/2016 9:57:52 AM	24955
Xylenes, Total	ND	0.081		mg/Kg	1	4/25/2016 9:57:52 AM	24955
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	4/25/2016 9:57:52 AM	24955

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
Project: GCU 242E
Lab ID: 1604A30-002 **Matrix:** MEOH (SOIL)

Client Sample ID: Mid North Base 5-pt @ 18'
Collection Date: 4/22/2016 2:26:00 PM
Received Date: 4/23/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	46	30		mg/Kg	20	4/25/2016 11:50:29 AM	24978
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/25/2016 10:47:48 AM	24971
Surr: DNOP	104	70-130		%Rec	1	4/25/2016 10:47:48 AM	24971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/25/2016 10:21:20 AM	24955
Surr: BFB	97.1	80-120		%Rec	1	4/25/2016 10:21:20 AM	24955
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.078	0.020		mg/Kg	1	4/25/2016 10:21:20 AM	24955
Toluene	0.063	0.040		mg/Kg	1	4/25/2016 10:21:20 AM	24955
Ethylbenzene	ND	0.040		mg/Kg	1	4/25/2016 10:21:20 AM	24955
Xylenes, Total	ND	0.079		mg/Kg	1	4/25/2016 10:21:20 AM	24955
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	4/25/2016 10:21:20 AM	24955

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
Project: GCU 242E
Lab ID: 1604A30-003
Matrix: MEOH (SOIL)
Client Sample ID: East Base 5-pt @ 18'
Collection Date: 4/22/2016 2:29:00 PM
Received Date: 4/23/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/25/2016 12:02:54 PM	24978
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/25/2016 11:09:36 AM	24971
Surr: DNOP	104	70-130		%Rec	1	4/25/2016 11:09:36 AM	24971
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.3	4.0		mg/Kg	1	4/25/2016 10:44:47 AM	24955
Surr: BFB	124	80-120	S	%Rec	1	4/25/2016 10:44:47 AM	24955
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.037	0.020		mg/Kg	1	4/25/2016 10:44:47 AM	24955
Toluene	0.12	0.040		mg/Kg	1	4/25/2016 10:44:47 AM	24955
Ethylbenzene	ND	0.040		mg/Kg	1	4/25/2016 10:44:47 AM	24955
Xylenes, Total	0.24	0.080		mg/Kg	1	4/25/2016 10:44:47 AM	24955
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/25/2016 10:44:47 AM	24955

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#: **1604A30**

26-Apr-16

Client: Blagg Engineering
Projcct: GCU 242E

Sample ID	**MB-24978**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**24978**	RunNo:	**33759**					
Prep Date:	**4/25/2016**	Analysis Date:	**4/25/2016**	SeqNo:	**1039760**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-24978**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**24978**	RunNo:	**33759**					
Prep Date:	**4/25/2016**	Analysis Date:	**4/25/2016**	SeqNo:	**1039761**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	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#: **1604A30**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **LCS-24971**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **24971**	RunNo: **33752**
Prep Date: **4/25/2016**	Analysis Date: **4/25/2016**	SeqNo: **1039575** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.7	65.8	136			
Surr: DNOP	4.8		5.000		95.9	70	130			

Sample ID **MB-24971**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **24971**	RunNo: **33752**
Prep Date: **4/25/2016**	Analysis Date: **4/25/2016**	SeqNo: **1039576** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.1	70	130			

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#: **1604A30**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	MB-24955	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	24955		RunNo:	33757				
Prep Date:	4/22/2016	Analysis Date:	4/25/2016		SeqNo:	1039872	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.1	80	120			

Sample ID	LCS-24955	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	24955		RunNo:	33757				
Prep Date:	4/22/2016	Analysis Date:	4/25/2016		SeqNo:	1039873	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	98.6	80	120			
Surr: BFB	1000		1000		103	80	120			

Sample ID	MB-24964	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	24964		RunNo:	33757				
Prep Date:	4/22/2016	Analysis Date:	4/25/2016		SeqNo:	1039916	Units:	%Rec		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.8	80	120			

Sample ID	LCS-24964	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	24964		RunNo:	33757				
Prep Date:	4/22/2016	Analysis Date:	4/25/2016		SeqNo:	1039925	Units:	%Rec		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	80	120			

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#: **1604A30**

26-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-24955** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **24955** RunNo: **33757**
Prep Date: **4/22/2016** Analysis Date: **4/25/2016** SeqNo: **1039955** 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	0.98		1.000		98.0	80	120			

Sample ID **LCS-24955** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **24955** RunNo: **33757**
Prep Date: **4/22/2016** Analysis Date: **4/25/2016** SeqNo: **1039956** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.1	75.3	123			
Toluene	0.87	0.050	1.000	0	87.4	80	124			
Ethylbenzene	0.85	0.050	1.000	0	84.6	82.8	121			
Xylenes, Total	2.5	0.10	3.000	0	84.5	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **MB-24964** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **24964** RunNo: **33757**
Prep Date: **4/22/2016** Analysis Date: **4/25/2016** SeqNo: **1039974** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID **LCS-24964** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **24964** RunNo: **33757**
Prep Date: **4/22/2016** Analysis Date: **4/25/2016** SeqNo: **1039975** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1604A30** RcptNo: 1

Received by/date: AG 04/23/16

Logged By: **Ashley Gallegos** **4/23/2016 8:45:00 AM** AG

Completed By: **Ashley Gallegos** **4/23/2016 9:32:47 AM** AG

Reviewed By: AT 04/25/16.

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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	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	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: BP AMERICA

BLAGG Engineering

Mailing Address:

Phone #: 505-320-1183

Email or Fax#:

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

Accreditation: NELAP ☐ Other

EDD (Type)

Turn-Around Time: ☐ Standard ☒ Rush ASAP SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1604430	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)	CHLORIDE				Air Bubbles (Y or N)
4/22/16	1415	SOIL	EAST SIDE SOUTH WALL 5-pt 10'-18'	4oz x1	COOL	-001	X		X									X				
"	1426	"	MID NORTH BASE 5-pt @ 18'	"	"	-002	X		X									X				
"	1429	"	EAST BASE 5-pt @ 18'	"	"	-003	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/22/16	1640			4/22/16	1640
4/22/16	1840			04/23/16	0845

Remarks: BILL BP
contact: Steve Moskal
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 02, 2016

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

RE: GCU 242E OrderNo.: 1604B45

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/27/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1604B45**
Date Reported: **5/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604B45-001
Matrix: MEOH (SOIL)

Client Sample ID: Extended East Base 5-pt @ 17'
Collection Date: 4/26/2016 2:12:00 PM
Received Date: 4/27/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/27/2016 11:18:24 AM	25044
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/27/2016 1:32:27 PM	25027
Surr: DNOP	102	70-130		%Rec	1	4/27/2016 1:32:27 PM	25027
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2016 11:57:03 AM	25015
Surr: BFB	100	80-120		%Rec	1	4/27/2016 11:57:03 AM	25015
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/27/2016 11:57:03 AM	25015
Toluene	ND	0.048		mg/Kg	1	4/27/2016 11:57:03 AM	25015
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2016 11:57:03 AM	25015
Xylenes, Total	ND	0.097		mg/Kg	1	4/27/2016 11:57:03 AM	25015
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/27/2016 11:57:03 AM	25015

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
Project: GCU 242E
Lab ID: 1604B45-002 **Matrix:** MEOH (SOIL)

Client Sample ID: East Side Wall 6-pt (8'-16')
Collection Date: 4/26/2016 2:21:00 PM
Received Date: 4/27/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	4/27/2016 11:30:48 AM	25044
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/27/2016 1:54:16 PM	25027
Surr: DNOP	103	70-130		%Rec	1	4/27/2016 1:54:16 PM	25027
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/27/2016 12:20:40 PM	25015
Surr: BFB	94.9	80-120		%Rec	1	4/27/2016 12:20:40 PM	25015
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/27/2016 12:20:40 PM	25015
Toluene	ND	0.047		mg/Kg	1	4/27/2016 12:20:40 PM	25015
Ethylbenzene	ND	0.047		mg/Kg	1	4/27/2016 12:20:40 PM	25015
Xylenes, Total	ND	0.094		mg/Kg	1	4/27/2016 12:20:40 PM	25015
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	4/27/2016 12:20:40 PM	25015

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#: **1604B45**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-25044**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **25044**			RunNo: **33845**					
Prep Date:	**4/27/2016**	Analysis Date: **4/27/2016**			SeqNo: **1042570**		Units: **mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								

Sample ID	**LCS-25044**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **25044**			RunNo: **33845**					
Prep Date:	**4/27/2016**	Analysis Date: **4/27/2016**			SeqNo: **1042571**		Units: **mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	94.9	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#: **1604B45**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	LCS-25001	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25001		RunNo:	33822				
Prep Date:	4/26/2016	Analysis Date:	4/27/2016		SeqNo:	1041860	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.6	70	130			

Sample ID	LCS-25027	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25027		RunNo:	33822				
Prep Date:	4/27/2016	Analysis Date:	4/27/2016		SeqNo:	1041861	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.5	65.8	136			
Surr: DNOP	4.4		5.000		88.0	70	130			

Sample ID	MB-25001	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25001		RunNo:	33822				
Prep Date:	4/26/2016	Analysis Date:	4/27/2016		SeqNo:	1041862	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.7	70	130			

Sample ID	MB-25027	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25027		RunNo:	33822				
Prep Date:	4/27/2016	Analysis Date:	4/27/2016		SeqNo:	1041863	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.2	70	130			

Sample ID	LCS-25002	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25002		RunNo:	33843				
Prep Date:	4/26/2016	Analysis Date:	4/28/2016		SeqNo:	1042563	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.5	70	130			

Sample ID	MB-25002	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25002		RunNo:	33843				
Prep Date:	4/26/2016	Analysis Date:	4/28/2016		SeqNo:	1042566	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		124	70	130			

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#: **1604B45**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-25015**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **25015**		RunNo: **33826**					
Prep Date:	**4/26/2016**	Analysis Date: **4/27/2016**		SeqNo: **1042318**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.3	80	120			

Sample ID	**LCS-25015**	SampType: **LCS**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **25015**		RunNo: **33826**					
Prep Date:	**4/26/2016**	Analysis Date: **4/27/2016**		SeqNo: **1042319**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.0	80	120			
Surr: BFB	1000		1000		102	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604B45**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25015**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25015**	RunNo: **33826**
Prep Date: **4/26/2016**	Analysis Date: **4/27/2016**	SeqNo: **1042402** 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	0.99		1.000		99.1	80	120			

Sample ID **LCS-25015**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25015**	RunNo: **33826**
Prep Date: **4/26/2016**	Analysis Date: **4/27/2016**	SeqNo: **1042403** 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	101	75.3	123			
Toluene	0.94	0.050	1.000	0	94.2	80	124			
Ethylbenzene	0.90	0.050	1.000	0	90.4	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	89.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1604B45** RcptNo: 1

Received by/date: 04/27/16

Logged By: **Lindsay Mangin** **4/27/2016 7:15:00 AM**

Completed By: **Lindsay Mangin** **4/27/2016 7:59:51 AM**

Reviewed By: 04/27/16

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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	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	1.3	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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)

Turn-Around Time: ☐ Standard ☒ Rush ASAP SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J- BLAGG

Sampler: J- BLAGG

On Ice: ☐ Yes ☐ No

Sample Temperature: 1.3

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1604B75	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)	CHLORIDE				Air Bubbles (Y or N)
6/16	1412	SOIL	Extended EAST BASE 5-pt @ 17'	4 oz x1	COOL	-001	X		X									X				
"	1421	"	EAST SIDE WALL 6-pt (8'-16')	"	"	-002	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	1655	Jill Blagg	Christine Walters	4/26/16	1655
4/26/16	1900	Christine Walters		04/27/16	0715

Remarks: Bill BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 29, 2016

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

RE: GCU 242E OrderNo.: 1604C10

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/28/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604C10-001
Matrix: MEOH (SOIL)
Client Sample ID: N Base - W End 5-pt (18'-20')
Collection Date: 4/27/2016 2:08:00 PM
Received Date: 4/28/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Chloride	49	30		mg/Kg	20	4/28/2016 12:02:08 PM	25067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/28/2016 11:25:43 AM	25053
Surr: DNOP	99.0	70-130		%Rec	1	4/28/2016 11:25:43 AM	25053
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/28/2016 10:00:37 AM	25034
Surr: BFB	97.2	80-120		%Rec	1	4/28/2016 10:00:37 AM	25034
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	4/28/2016 10:00:37 AM	25034
Toluene	ND	0.040		mg/Kg	1	4/28/2016 10:00:37 AM	25034
Ethylbenzene	ND	0.040		mg/Kg	1	4/28/2016 10:00:37 AM	25034
Xylenes, Total	ND	0.079		mg/Kg	1	4/28/2016 10:00:37 AM	25034
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	4/28/2016 10:00:37 AM	25034

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
Project: GCU 242E
Lab ID: 1604C10-002
Matrix: MEOH (SOIL)
Client Sample ID: N Base - E End 5-pt (17'-18')
Collection Date: 4/27/2016 2:14:00 PM
Received Date: 4/28/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Chloride	ND	30		mg/Kg	20	4/28/2016 12:14:33 PM	25067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/28/2016 11:47:55 AM	25053
Surr: DNOP	100	70-130		%Rec	1	4/28/2016 11:47:55 AM	25053
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/28/2016 10:23:59 AM	25034
Surr: BFB	97.5	80-120		%Rec	1	4/28/2016 10:23:59 AM	25034
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	4/28/2016 10:23:59 AM	25034
Toluene	ND	0.041		mg/Kg	1	4/28/2016 10:23:59 AM	25034
Ethylbenzene	ND	0.041		mg/Kg	1	4/28/2016 10:23:59 AM	25034
Xylenes, Total	ND	0.082		mg/Kg	1	4/28/2016 10:23:59 AM	25034
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	1	4/28/2016 10:23:59 AM	25034

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
Project: GCU 242E
Lab ID: 1604C10-003
Matrix: MEOH (SOIL)
Client Sample ID: N Wall - E End 5-pt (8'-14')
Collection Date: 4/27/2016 2:18:00 PM
Received Date: 4/28/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Chloride	ND	30		mg/Kg	20	4/28/2016 12:26:58 PM	25067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/28/2016 12:09:58 PM	25053
Surr: DNOP	104	70-130		%Rec	1	4/28/2016 12:09:58 PM	25053
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/28/2016 10:47:23 AM	25034
Surr: BFB	97.2	80-120		%Rec	1	4/28/2016 10:47:23 AM	25034
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	4/28/2016 10:47:23 AM	25034
Toluene	ND	0.044		mg/Kg	1	4/28/2016 10:47:23 AM	25034
Ethylbenzene	ND	0.044		mg/Kg	1	4/28/2016 10:47:23 AM	25034
Xylenes, Total	ND	0.089		mg/Kg	1	4/28/2016 10:47:23 AM	25034
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	4/28/2016 10:47:23 AM	25034

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
Project: GCU 242E
Lab ID: 1604C10-004
Matrix: MEOH (SOIL)
Client Sample ID: N Wall - Center W 4-pt (8'-16')
Collection Date: 4/27/2016 2:24:00 PM
Received Date: 4/28/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SRM**	
Chloride	ND	30		mg/Kg	20	4/28/2016 12:39:23 PM	25067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/28/2016 12:31:46 PM	25053
Surr: DNOP	102	70-130		%Rec	1	4/28/2016 12:31:46 PM	25053
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/28/2016 11:10:57 AM	25034
Surr: BFB	94.8	80-120		%Rec	1	4/28/2016 11:10:57 AM	25034
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	4/28/2016 11:10:57 AM	25034
Toluene	ND	0.042		mg/Kg	1	4/28/2016 11:10:57 AM	25034
Ethylbenzene	ND	0.042		mg/Kg	1	4/28/2016 11:10:57 AM	25034
Xylenes, Total	ND	0.084		mg/Kg	1	4/28/2016 11:10:57 AM	25034
Surr: 4-Bromofluorobenzene	95.5	80-120		%Rec	1	4/28/2016 11:10:57 AM	25034

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#: **1604C10**

29-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-25067**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**25067**		RunNo:	**33881**				
Prep Date:	**4/28/2016**	Analysis Date:	**4/28/2016**		SeqNo:	**1043530**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-25067**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**25067**		RunNo:	**33881**				
Prep Date:	**4/28/2016**	Analysis Date:	**4/28/2016**		SeqNo:	**1043531**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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#: **1604C10**

29-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **LCS-25002** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **25002** RunNo: **33843**
Prep Date: **4/26/2016** Analysis Date: **4/28/2016** SeqNo: **1042563** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.5	70	130			

Sample ID **MB-25002** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **25002** RunNo: **33843**
Prep Date: **4/26/2016** Analysis Date: **4/28/2016** SeqNo: **1042566** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		124	70	130			

Sample ID **MB-25053** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **25053** RunNo: **33843**
Prep Date: **4/28/2016** Analysis Date: **4/28/2016** SeqNo: **1042567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	70	130			

Sample ID **LCS-25053** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **25053** RunNo: **33843**
Prep Date: **4/28/2016** Analysis Date: **4/28/2016** SeqNo: **1042741** 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	93.3	65.8	136			
Surr: DNOP	4.8		5.000		95.8	70	130			

Sample ID **1604C10-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **N Base - W End 5-pt** Batch ID: **25053** RunNo: **33843**
Prep Date: **4/28/2016** Analysis Date: **4/28/2016** SeqNo: **1043207** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.90	4.228	87.3	33.9	141			
Surr: DNOP	4.7		4.990		93.8	70	130			

Sample ID **1604C10-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **N Base - W End 5-pt** Batch ID: **25053** RunNo: **33843**
Prep Date: **4/28/2016** Analysis Date: **4/28/2016** SeqNo: **1043208** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.7	48.69	4.228	93.6	33.9	141	4.05	20	
Surr: DNOP	4.8		4.869		98.5	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#: **1604C10**

29-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25034**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25034**	RunNo: **33850**
Prep Date: **4/27/2016**	Analysis Date: **4/28/2016**	SeqNo: **1043122** 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	960		1000		96.2	80	120			

Sample ID **LCS-25034**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25034**	RunNo: **33850**
Prep Date: **4/27/2016**	Analysis Date: **4/28/2016**	SeqNo: **1043125** 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	91.5	80	120			
Surr: BFB	1000		1000		102	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604C10**

29-Apr-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25034**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25034**	RunNo: **33850**
Prep Date: **4/27/2016**	Analysis Date: **4/28/2016**	SeqNo: **1043171** 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	0.99		1.000		99.1	80	120			

Sample ID **LCS-25034**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25034**	RunNo: **33850**
Prep Date: **4/27/2016**	Analysis Date: **4/28/2016**	SeqNo: **1043173** 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	106	75.3	123			
Toluene	0.98	0.050	1.000	0	98.4	80	124			
Ethylbenzene	0.92	0.050	1.000	0	92.1	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	91.7	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

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

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: **1604C10** RcptNo: **1**

Received by/date: 04/28/16

Logged By: **Lindsay Mangin** **4/28/2016 7:00:00 AM**

Completed By: **Lindsay Mangin** **4/28/2016 7:23:58 AM**

Reviewed By: AT 04/28/16

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
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 ☐	Adjusted?
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 ☐	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	1.8	Good	Yes			

Chain-of-Custody Record

Client: BP AMERICA
BLAGG ENGINEERING INC.
Mailing Address:
Phone #: (505) 320-4183
Email or Fax#:
QA/QC Package: (Standard) ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ASAP SAME DAY
☐ Standard ☒ Rush
Project Name: GCU 242E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.8

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1604C10	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)	CHLORIDE	Air Bubbles (Y or N)
4/27/16	1403	SOIL	NORTH BASE - West End 5-pt (19'-20')	4 oz x 1	COOL	-001	X		X									X	
"	1414	"	NORTH BASE - EAST END 5-pt (17'-18')	"	"	-002	X		X									X	
"	1418	"	NORTH WALL - EAST END 5-pt (8'-14')	"	"	-003	X		X									X	
"	1424	"	NORTH WALL - Center West 4-pt (8'-16')	"	"	-004	X		X									X	

Date	Time	Relinquished by:	Received by:	Date	Time
4/27/16	1535	Jeff Blagg	Christine Walker	4/27/16	1535
4/28/16	1747	Christine Walker		04/28/16	0700

Remarks: BILL BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 02, 2016

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

RE: GCU 242E OrderNo.: 1604C69

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/29/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604C69-001
Matrix: MEOH (SOIL)
Client Sample ID: N Wall-W End Extension 5-pt (8'
Collection Date: 4/28/2016 2:10:00 PM
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	40	30		mg/Kg	20	4/29/2016 11:53:39 AM	25076
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/29/2016 10:55:02 AM	25071
Surr: DNOP	90.5	70-130		%Rec	1	4/29/2016 10:55:02 AM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/29/2016 10:33:41 AM	25062
Surr: BFB	97.5	80-120		%Rec	1	4/29/2016 10:33:41 AM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	4/29/2016 10:33:41 AM	25062
Toluene	ND	0.044		mg/Kg	1	4/29/2016 10:33:41 AM	25062
Ethylbenzene	ND	0.044		mg/Kg	1	4/29/2016 10:33:41 AM	25062
Xylenes, Total	ND	0.089		mg/Kg	1	4/29/2016 10:33:41 AM	25062
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	4/29/2016 10:33:41 AM	25062

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
Project: GCU 242E
Lab ID: 1604C69-002 **Matrix:** MEOH (SOIL)

Client Sample ID: Base-W End N Extension 5-pt @
Collection Date: 4/28/2016 2:15:00 PM
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	52	30		mg/Kg	20	4/29/2016 12:06:04 PM	25076
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/29/2016 11:16:37 AM	25071
Surr: DNOP	95.6	70-130		%Rec	1	4/29/2016 11:16:37 AM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.4	4.2		mg/Kg	1	4/29/2016 10:57:19 AM	25062
Surr: BFB	115	80-120		%Rec	1	4/29/2016 10:57:19 AM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	4/29/2016 10:57:19 AM	25062
Toluene	0.046	0.042		mg/Kg	1	4/29/2016 10:57:19 AM	25062
Ethylbenzene	ND	0.042		mg/Kg	1	4/29/2016 10:57:19 AM	25062
Xylenes, Total	0.13	0.085		mg/Kg	1	4/29/2016 10:57:19 AM	25062
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/29/2016 10:57:19 AM	25062

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#: **1604C69**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-25076**	SampType: **mblk**			TestCode: **EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID: **25076**			RunNo: **33917**				
Prep Date:	**4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1044748**		Units: **mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-25076**	SampType: **lcs**			TestCode: **EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID: **25076**			RunNo: **33917**				
Prep Date:	**4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1044749**		Units: **mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	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#: **1604C69**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **LCS-25071**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1043645**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.8	65.8	136			
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID **MB-25071**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1043646**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.3	70	130			

Sample ID **MB-25085**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **25085**			RunNo: **33883**					
Prep Date: **4/30/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044127**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.1	70	130			

Sample ID **LCS-25085**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **25085**			RunNo: **33883**					
Prep Date: **4/30/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044133**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.8	70	130			

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#: **1604C69**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25062**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043964** 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		97.6	80	120			

Sample ID **LCS-25062**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.8	80	120			
Surr: BFB	1000		1000		105	80	120			

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#: **1604C69**

02-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25062**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043996** 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	1.0		1.000		101	80	120			

Sample ID **LCS-25062**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	75.3	123			
Toluene	0.84	0.050	1.000	0	84.4	80	124			
Ethylbenzene	0.83	0.050	1.000	0	82.6	82.8	121			S
Xylenes, Total	2.5	0.10	3.000	0	81.8	83.9	122			S
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

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

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: **1604C69** RcptNo: **1**

Received by/date: 04/29/16

Logged By: **Lindsay Mangin** 4/29/2016 7:00:00 AM

Completed By: **Lindsay Mangin** 4/29/2016 7:39:32 AM

Reviewed By: 04/29/16

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
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 ☐	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	1.8	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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)

Turn-Around Time: ☐ Standard ☒ Rush ASAP SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0

HEAL No. 1604C69

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)	CHLORIDE				Air Bubbles (Y or N)
4/28/2016	1410	SOIL	NORTH WALL - WEST END Extension 5-pt (8'-10')	4 oz x 1	COOL	-001	X		X									X				
"	1415	"	BASE - WEST END NORTH Extension 5-pt @ 20'	"	"	-002	X		X									X				

Date: 4/28/2016 Time: 1715 Relinquished by: J. Blagg

Received by: Date 4/28/16 Time 1715

Date: 4/28/16 Time: 1810 Relinquished by:

Received by: Date 04/29/16 Time 0700

Remarks: BILL BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 03, 2016

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

RE: GCU 242E OrderNo.: 1604D28

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/30/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1604D28-001

Client Sample ID: West Wall 9-pt Comp (8'-18')
Collection Date: 4/29/2016 2:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	67	30		mg/Kg	20	5/2/2016 2:10:39 PM	25106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/30/2016 3:50:14 PM	25085
Surr: DNOP	97.9	70-130		%Rec	1	4/30/2016 3:50:14 PM	25085
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	6.7	4.4		mg/Kg	1	4/30/2016 6:18:49 PM	25083
Surr: BFB	115	80-120		%Rec	1	4/30/2016 6:18:49 PM	25083
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.027	0.022		mg/Kg	1	4/30/2016 6:18:49 PM	25083
Toluene	0.13	0.044		mg/Kg	1	4/30/2016 6:18:49 PM	25083
Ethylbenzene	ND	0.044		mg/Kg	1	4/30/2016 6:18:49 PM	25083
Xylenes, Total	0.30	0.087		mg/Kg	1	4/30/2016 6:18:49 PM	25083
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	4/30/2016 6:18:49 PM	25083

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#: **1604D28**

03-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	MB-25106	SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	25106		RunNo:	33940				
Prep Date:	5/2/2016	Analysis Date:	5/2/2016		SeqNo:	1045729	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25106	SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS	Batch ID:	25106		RunNo:	33940				
Prep Date:	5/2/2016	Analysis Date:	5/2/2016		SeqNo:	1045730	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	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#: **1604D28**

03-May-16

Client: Blagg Engineering

Project: GCU 242E

Sample ID	LCS-25071	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25071		RunNo:	33883				
Prep Date:	4/29/2016	Analysis Date:	4/29/2016		SeqNo:	1043645	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID	MB-25071	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25071		RunNo:	33883				
Prep Date:	4/29/2016	Analysis Date:	4/29/2016		SeqNo:	1043646	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.3	70	130			

Sample ID	MB-25085	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25085		RunNo:	33883				
Prep Date:	4/30/2016	Analysis Date:	4/30/2016		SeqNo:	1044127	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.1	70	130			

Sample ID	LCS-25085	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25085		RunNo:	33883				
Prep Date:	4/30/2016	Analysis Date:	4/30/2016		SeqNo:	1044133	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	93.7	65.8	136			
Surr: DNOP	4.4		5.000		87.8	70	130			

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#: **1604D28**

03-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	**MB-25083**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **25083**			RunNo: **33902**					
Prep Date:	**4/29/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044407**		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		970		1000		97.1	80	120			

Sample ID	**LCS-25083**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **25083**			RunNo: **33902**					
Prep Date:	**4/29/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044408**		Units: **mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		24	5.0	25.00	0	94.7	80	120			
Surr: BFB		1100		1000		106	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604D28**

03-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25083**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25083**	RunNo: **33902**
Prep Date: **4/29/2016**	Analysis Date: **4/30/2016**	SeqNo: **1044432** 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	0.99		1.000		98.6	80	120			

Sample ID **LCS-25083**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25083**	RunNo: **33902**
Prep Date: **4/29/2016**	Analysis Date: **4/30/2016**	SeqNo: **1044433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.4	75.3	123			
Toluene	0.86	0.050	1.000	0	85.6	80	124			
Ethylbenzene	0.84	0.050	1.000	0	84.0	82.8	121			
Xylenes, Total	2.5	0.10	3.000	0	83.9	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

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

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: 1604D28 | RcptNo: 1

Received by/date: [signature] 04/30/16

Logged By: Lindsay Mangin 4/30/2016 8:03:00 AM [signature]

Completed By: Lindsay Mangin 4/30/2016 8:23:32 AM [signature]

Reviewed By: NC 4/30/16 08:35

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 ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
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 ☐	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	3.8	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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)

Turn-Around Time: ☐ Standard ☒ Rush ASAP SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.8

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)	CHLORIDE					Air Bubbles (Y or N)
4/6	1415	SOIL	WEST WALL 9-PT COMP (8'-18')	4oz x 1	COOL	1604128-001	X		X									X					

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/6	1505	Jeff Blagg	Chris Watts	4/29/16	1505
4/29/16	1740	Chris Watts		04/30/16	0803

Remarks: Bill BP
contact: Steve Moscal
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 05, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 632-1199
FAX (505) 632-3903

RE: GCU 242E OrderNo.: 1605063

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/3/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1605063-001 **Matrix:** SOIL

Client Sample ID: SW Wall-E END 6-pt (8'-16')
Collection Date: 5/2/2016 2:16:00 PM
Received Date: 5/3/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/3/2016 12:16:05 PM	25117
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/3/2016 1:51:30 PM	25118
Surr: DNOP	78.5	70-130		%Rec	1	5/3/2016 1:51:30 PM	25118
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/3/2016 11:01:10 AM	A33952
Surr: BFB	107	80-120		%Rec	1	5/3/2016 11:01:10 AM	A33952
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/3/2016 11:01:10 AM	B33952
Toluene	ND	0.050		mg/Kg	1	5/3/2016 11:01:10 AM	B33952
Ethylbenzene	ND	0.050		mg/Kg	1	5/3/2016 11:01:10 AM	B33952
Xylenes, Total	ND	0.10		mg/Kg	1	5/3/2016 11:01:10 AM	B33952
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	5/3/2016 11:01:10 AM	B33952

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
Project: GCU 242E
Lab ID: 1605063-002 **Matrix:** SOIL

Client Sample ID: SW Wall W END 6-pt (8'-16)
Collection Date: 5/2/2016 2:22:00 PM
Received Date: 5/3/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/3/2016 12:28:29 PM	25117
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/3/2016 2:13:24 PM	25118
Surr: DNOP	71.0	70-130		%Rec	1	5/3/2016 2:13:24 PM	25118
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	14	4.8		mg/Kg	1	5/3/2016 11:24:39 AM	A33952
Surr: BFB	122	80-120	S	%Rec	1	5/3/2016 11:24:39 AM	A33952
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/3/2016 11:24:39 AM	B33952
Toluene	0.071	0.048		mg/Kg	1	5/3/2016 11:24:39 AM	B33952
Ethylbenzene	ND	0.048		mg/Kg	1	5/3/2016 11:24:39 AM	B33952
Xylenes, Total	0.31	0.097		mg/Kg	1	5/3/2016 11:24:39 AM	B33952
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	5/3/2016 11:24:39 AM	B33952

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
Project: GCU 242E
Lab ID: 1605063-003 **Matrix:** SOIL

Client Sample ID: SW CORNER BASE E Side 4-pt
Collection Date: 5/2/2016 2:26:00 PM
Received Date: 5/3/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/3/2016 12:40:54 PM	25117
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/3/2016 2:35:25 PM	25118
Surr: DNOP	79.8	70-130		%Rec	1	5/3/2016 2:35:25 PM	25118
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/3/2016 11:48:12 AM	A33952
Surr: BFB	102	80-120		%Rec	1	5/3/2016 11:48:12 AM	A33952
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	5/3/2016 11:48:12 AM	B33952
Toluene	ND	0.043		mg/Kg	1	5/3/2016 11:48:12 AM	B33952
Ethylbenzene	ND	0.043		mg/Kg	1	5/3/2016 11:48:12 AM	B33952
Xylenes, Total	ND	0.086		mg/Kg	1	5/3/2016 11:48:12 AM	B33952
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/3/2016 11:48:12 AM	B33952

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
Project: GCU 242E
Lab ID: 1605063-004 **Matrix:** SOIL

Client Sample ID: SW CORNER BASE W Side 4-p
Collection Date: 5/2/2016 2:31:00 PM
Received Date: 5/3/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/3/2016 12:53:19 PM	25117
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/3/2016 2:57:15 PM	25118
Surr: DNOP	72.6	70-130		%Rec	1	5/3/2016 2:57:15 PM	25118
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.3	3.8		mg/Kg	1	5/3/2016 12:11:47 PM	A33952
Surr: BFB	115	80-120		%Rec	1	5/3/2016 12:11:47 PM	A33952
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.020	0.019		mg/Kg	1	5/3/2016 12:11:47 PM	B33952
Toluene	0.045	0.038		mg/Kg	1	5/3/2016 12:11:47 PM	B33952
Ethylbenzene	ND	0.038		mg/Kg	1	5/3/2016 12:11:47 PM	B33952
Xylenes, Total	0.10	0.077		mg/Kg	1	5/3/2016 12:11:47 PM	B33952
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	5/3/2016 12:11:47 PM	B33952

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#: **1605063**

05-May-16

Client: Blagg Engineering

Project: GCU 242E

Sample ID	LCS-25093	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25093		RunNo:	33949				
Prep Date:	5/2/2016	Analysis Date:	5/3/2016		SeqNo:	1045935	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.2	70	130			

Sample ID	LCS-25118	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	25118		RunNo:	33949				
Prep Date:	5/3/2016	Analysis Date:	5/3/2016		SeqNo:	1045936	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.1	65.8	136			
Surr: DNOP	3.0		5.000		59.5	70	130			S

Sample ID	MB-25093	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25093		RunNo:	33949				
Prep Date:	5/2/2016	Analysis Date:	5/3/2016		SeqNo:	1045937	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		94.6	70	130			

Sample ID	MB-25118	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	25118		RunNo:	33949				
Prep Date:	5/3/2016	Analysis Date:	5/3/2016		SeqNo:	1045938	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.2		10.00		71.6	70	130			

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#: **1605063**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **A33952**	RunNo: **33952**
Prep Date:	Analysis Date: **5/3/2016**	SeqNo: **1046270** 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		100	80	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A33952**	RunNo: **33952**
Prep Date:	Analysis Date: **5/3/2016**	SeqNo: **1046271** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.9	80	120			
Surr: BFB	1100		1000		107	80	120			

Sample ID **MB-25102**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046281** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	80	120			

Sample ID **LCS-25102**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046282** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		107	80	120			

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#: **1605063**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B33952**	RunNo: **33952**
Prep Date:	Analysis Date: **5/3/2016**	SeqNo: **1046344** 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	1.0		1.000		103	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B33952**	RunNo: **33952**
Prep Date:	Analysis Date: **5/3/2016**	SeqNo: **1046345** 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	102	75.3	123			
Toluene	0.96	0.050	1.000	0	95.5	80	124			
Ethylbenzene	0.91	0.050	1.000	0	90.8	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	89.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID **MB-25102**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046354** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **LCS-25102**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046361** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1605063 RcptNo: 1

Received by/date: AT 05/03/16

Logged By: Anne Thorne 5/3/2016 8:05:00 AM

Completed By: Anne Thorne 5/3/2016

Reviewed By: 05/03/16

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	1.3	Good	Yes			

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)

Turn-Around Time: RUSH ASAP
☐ Standard ☒ Rush SAME DAY
Project Name: GCU 242E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1605063	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)	Chloride				Air Bubbles (Y or N)
4/2016	1416	SOIL	SW wall - EAST END 6-pt (8'-16')	4 oz x 1	COOL	001	X		X									X				
"	1422	"	SW wall - WEST END 6-pt (8'-16')	"	"	002	X		X									X				
"	1426	"	SW CORNER BASE EAST side 4-pt @ 18'	"	"	003	X		X									X				
"	1431	"	SW corner BASE West side 4-pt @ 18'	"	"	004	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	1708			5/2/16	1708
Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	1837			05/03/16	0805

Remarks: BILL BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 05, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 632-1199
FAX (505) 632-3903

RE: GCU 242E OrderNo.: 1605112

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/4/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1605112**
Date Reported: **5/5/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 242E
Lab ID: 1605112-001 **Matrix:** SOIL

Client Sample ID: Southwest Base 3-pt @ 17'
Collection Date: 5/3/2016 2:10:00 PM
Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/4/2016 12:17:00 PM	25147
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2016 11:24:22 AM	25140
Surr: DNOP	101	70-130		%Rec	1	5/4/2016 11:24:22 AM	25140
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/4/2016 11:17:01 AM	25130
Surr: BFB	94.0	80-120		%Rec	1	5/4/2016 11:17:01 AM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.19	0.025		mg/Kg	1	5/4/2016 11:17:01 AM	25130
Toluene	ND	0.050		mg/Kg	1	5/4/2016 11:17:01 AM	25130
Ethylbenzene	ND	0.050		mg/Kg	1	5/4/2016 11:17:01 AM	25130
Xylenes, Total	ND	0.10		mg/Kg	1	5/4/2016 11:17:01 AM	25130
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	5/4/2016 11:17:01 AM	25130

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
Project: GCU 242E
Lab ID: 1605112-002 **Matrix:** SOIL

Client Sample ID: West Wall South End 9-PT (7'-1
Collection Date: 5/3/2016 2:17:00 PM
Received Date: 5/4/2016 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	5/4/2016 12:29:24 PM	25147
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2016 11:46:17 AM	25140
Surr: DNOP	101	70-130		%Rec	1	5/4/2016 11:46:17 AM	25140
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	10	5.9		mg/Kg	1	5/4/2016 11:40:33 AM	25130
Surr: BFB	111	80-120		%Rec	1	5/4/2016 11:40:33 AM	25130
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.077	0.030		mg/Kg	1	5/4/2016 11:40:33 AM	25130
Toluene	0.30	0.059		mg/Kg	1	5/4/2016 11:40:33 AM	25130
Ethylbenzene	ND	0.059		mg/Kg	1	5/4/2016 11:40:33 AM	25130
Xylenes, Total	0.60	0.12		mg/Kg	1	5/4/2016 11:40:33 AM	25130
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	5/4/2016 11:40:33 AM	25130

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#: **1605112**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25147**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **25147**	RunNo: **34005**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047798** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-25147**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **25147**	RunNo: **34005**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047799** 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#: **1605112**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **LCS-25140**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **25140**	RunNo: **33966**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047132** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	93.0	65.8	136			
Surr: DNOP	4.7		5.000		94.2	70	130			

Sample ID **MB-25140**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **25140**	RunNo: **33966**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047133** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		97.9	70	130			

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#: **1605112**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID **MB-25130**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047281** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120			

Sample ID **LCS-25130**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25130**	RunNo: **33977**
Prep Date: **5/3/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047282** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	80	120			
Surr: BFB	970		1000		97.2	80	120			

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#: **1605112**

05-May-16

Client: Blagg Engineering
Project: GCU 242E

Sample ID	MB-25130	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	25130	RunNo:	33977				
Prep Date:	5/3/2016	Analysis Date:	5/4/2016	SeqNo:	1047315	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	0.93		1.000		92.9	80	120			

Sample ID	LCS-25130	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS	Batch ID:	25130	RunNo:	33977				
Prep Date:	5/3/2016	Analysis Date:	5/4/2016	SeqNo:	1047316	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	100	75.3	123			
Toluene	0.93	0.050	1.000	0	93.3	80	124			
Ethylbenzene	0.88	0.050	1.000	0	88.0	82.8	121			
Xylenes, Total	2.6	0.10	3.000	0	87.2	83.9	122			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1605112 RcptNo: 1

Received by/date: LM 05/04/16

Logged By: Anne Thorne 5/4/2016 7:55:00 AM Anne Thorne

Completed By: Anne Thorne 5/4/2016 Anne Thorne

Reviewed By: AT 05/04/16

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	1.4	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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) ____

Turn-Around Time: ☐ Standard ☒ Rush ASAP SAME DAY

Project Name: GCU 242E

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4

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)	CHLORIDE				Air Bubbles (Y or N)
5/2016	1410	SOIL	Southwest Base 3-pt @ 17'	4 oz x 1 MeoHKt	COOL	1605112-001	X		X									X				
"	1417	"	West Wall South end 9-pt (7'-16')	"	"	-002	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/2016	1820			5/3/16	1820
5/4/16	1940			05/04/16	0755

Remarks: BILL BP
CONTACT: STEVE MOSCAL
VID: VMOS6HQFEC

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.

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 03143-1183

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

Form C-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
BP America Production Co. 200 Energy Ct. Farmington, NM 87401

2. **Originating Site:**
Gallegos Canyon Unit 242E
Paykey: VHIXONEVRM
April / May 2016

3. **Location of Material (Street Address, City, State or ULSTR):**
QRT/QRT: NE/SW Unit: K Section: 24 T28N R12W

4. **Source and Description of Waste:** Hydrocarbon impacted soil derived from a below grade tank and a former earthen pit.

Estimated Volume 120 ☒ yd³ / ☐ bbls Known Volume (to be entered by the operator at the end of the haul) 327 yd³ / ☐ bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Steve Moskal, representative or authorized agent for BP America Production Company do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Steve Moskal, representative for BP America Production Company authorize Envirotech to complete the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:**
Crossfire

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech Landfarm #2; Permit # NM-01-0011

Address of Facility: #43 CR 7175, 14 Miles S of Bloomfield, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 6/2/16

SIGNATURE: _____ TELEPHONE NO.: 505-632-0615

Surface Waste Management Facility Authorized Agent