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: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: GCU 265E	Facility Type: Oil well

Surface Owner: BLM	Mineral Owner: Federal	API No. 3004526706

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
K	25	28N	12W	1650	South	1800	West	

OIL CONS. DIV DIST. 3

AUG 29 2014

Latitude 36.63046 **Longitude** 108.06589

NATURE OF RELEASE

Type of Release: oil	Volume of Release: 259 bbl in the containment area	Volume Recovered: 242 bbl including 95 bbl from the BGT
Source of Release: production tank	Date and Hour of Occurrence: October 9, 2013 8:45 AM	Date and Hour of Discovery: October 9, 2013; 11:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Brandon Powell	
By Whom? Courtney Cochran	Date and Hour October 9, 2103; 1:00 PM	
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.* On October 9, 2013 the contract gauger drained water off the bottom of the production tank. After draining the water, instead of closing the drain valve, he opened the valve fully and left the location. The release was discovered later after the entire contents of the tank had drained into the containment area. The volume released was 259 bbl of oil, of which 242 bbl were recovered.

Describe Area Affected and Cleanup Action Taken.* All of the released oil was contained within the bermed area around the tank. Borehole drilling in the center of the containment area showed impacted soil to 16 ft below the surface. Once the production equipment was removed excavation of the impacted soil began. Approximately 1,464 cubic yards of soil was excavated and taken to the IEI landfarm for treatment. Soil samples were taken and analyzed for TPH to determine when all impacted soil had been removed. Clean soil was hauled to the location to backfill the excavation. The backfilled soil was compacted so the production equipment can be placed back into service and the well can begin producing again.

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: Jeff Peace	OIL CONSERVATION DIVISION
Printed Name: Jeff Peace	Approved by Environmental Specialist: Jonathan D. Kelly
Title: Field Environmental Advisor	Approval Date: 11/12/2014 Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval: Attached ☐
Date: November 15, 2013 Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

nJK 1431650615

67

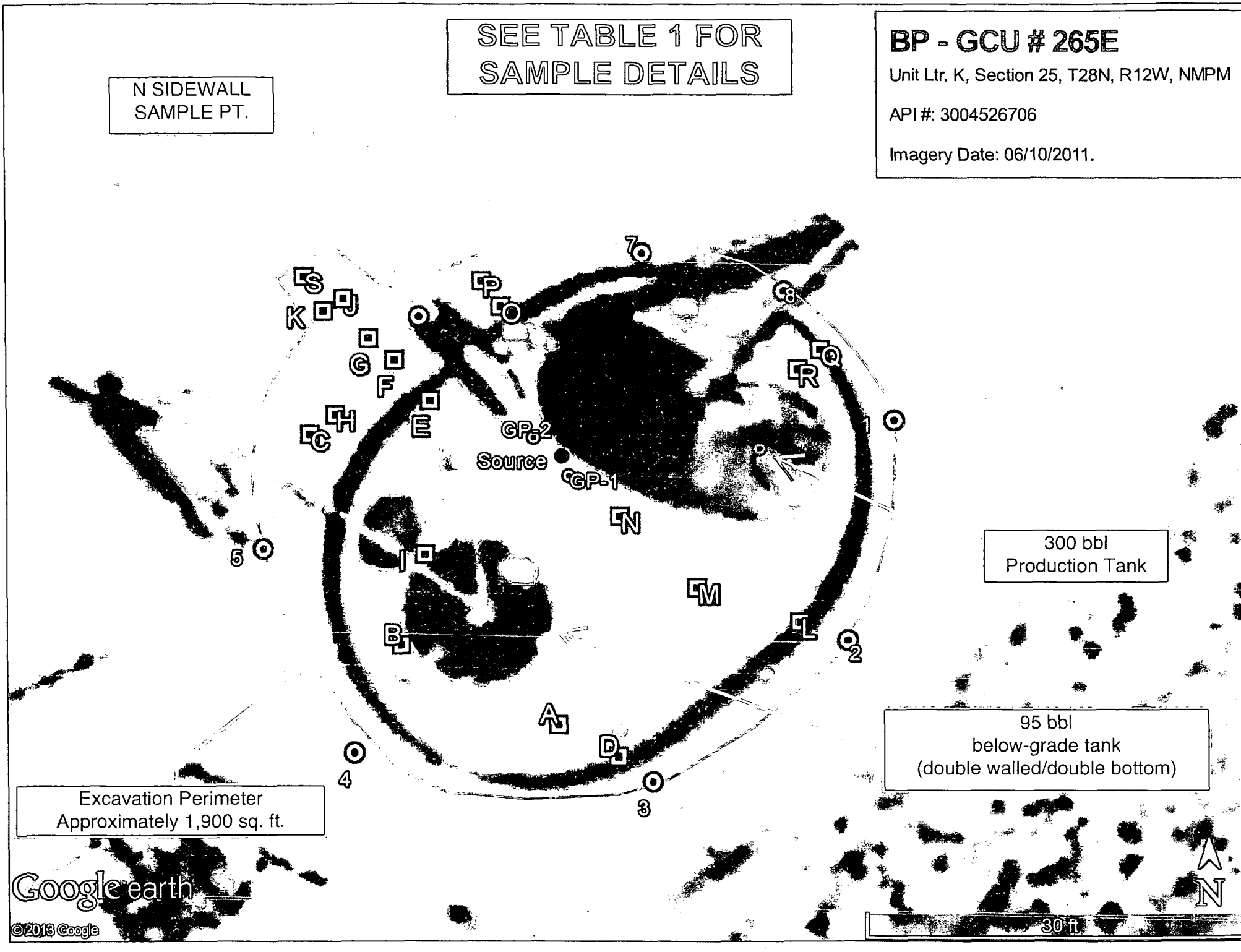
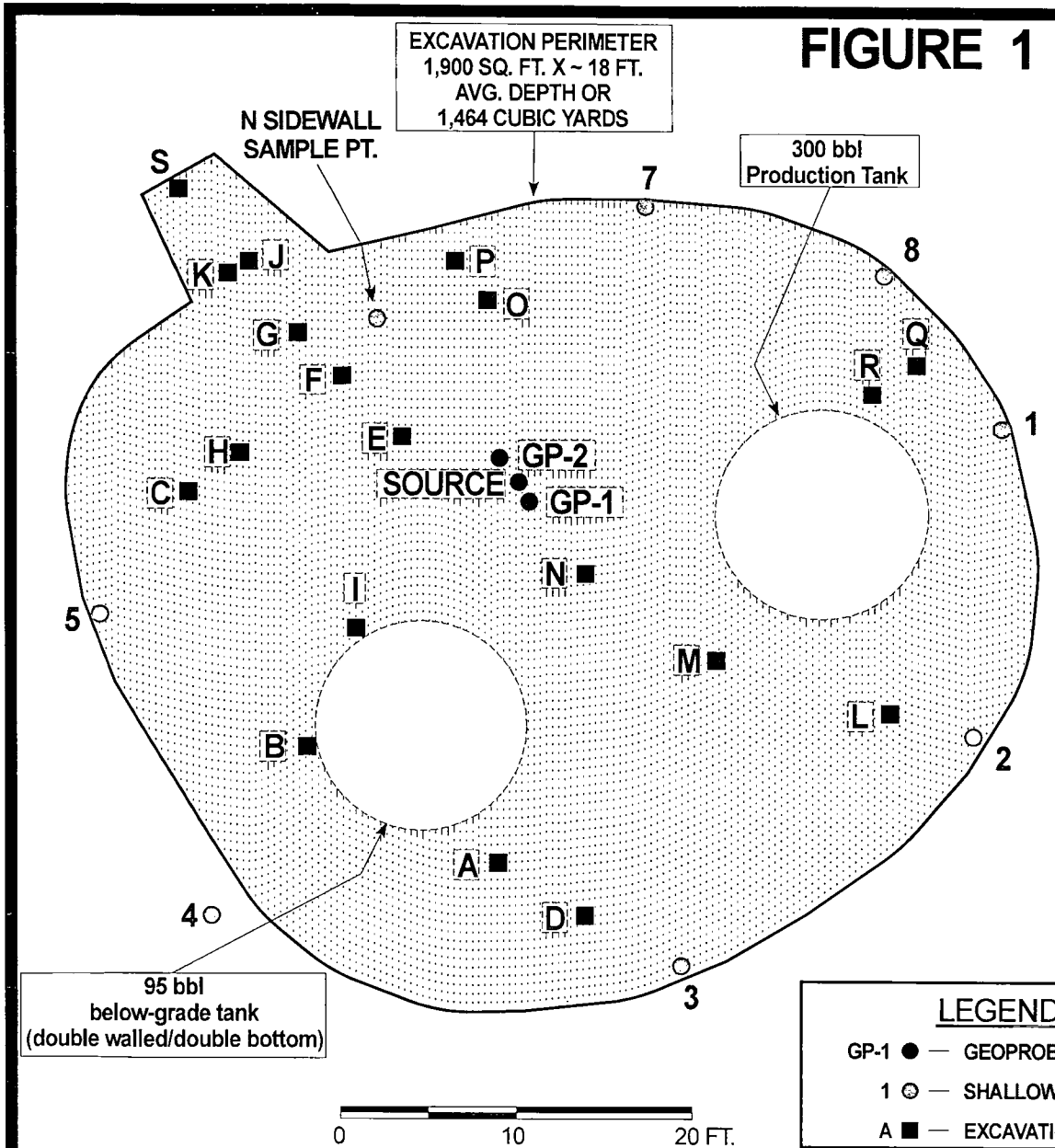

SEE TABLE 1 FOR SAMPLE DETAILS
BP - GCU # 265E
Unit Ltr. K, Section 25, T28N, R12W, NMPM
API #: 3004526706
Imagery Date: 06/10/2011.
N SIDEWALL SAMPLE PT.
GP-2
Source
GP-1
300 bbl Production Tank
95 bbl below-grade tank (double walled/double bottom)
Excavation Perimeter Approximately 1,900 sq. ft.
Google earth
©2013 Google
30 ft
N

FIGURE 1



SAMPLE ID & MAP NUMBER OR LETTER DESIGNATION		SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)
Source @ surface		10/11/13	0940	GRAB	365	-	-	-
Source @ 5'		10/11/13	0945	GRAB	728	550	-	-
Source @ 10'		10/11/13	0955	GRAB	266	130	-	-
Source @ 15'		10/11/13	1010	GRAB	628	246	-	-
GP-1 @ 16'		10/16/13	1218	GRAB		ND	ND	ND
GP-1 @ 20'		10/16/13	1223	GRAB		ND	ND	ND
GP-1 @ 25'		10/16/13	1236	GRAB		ND	ND	ND
GP-2 @ 25'		10/16/13	1340	GRAB		ND	ND	ND
1 @ 4'	1	10/23/13	0732	GRAB	0.6	-	-	-
2 @ 4'	2	10/23/13	0733	GRAB	6.9	-	-	-
3 @ 4'	3	10/23/13	0734	GRAB	0.3	-	-	-
4 @ 4'	4	10/23/13	0735	GRAB	1.0	-	-	-
5 @ 4'	5	10/23/13	0736	GRAB	0.0	-	-	-
N. SIDEWALL @ 4'	6	10/23/13	0737	GRAB	14.8	ND	ND	ND
7 @ 4'	7	10/23/13	0738	GRAB	5.4	-	-	-
8 @ 4'	8	10/23/13	0740	GRAB	0.5	-	-	-
SW - SSW @ 12'	A	10/23/13	1350	GRAB	4.7	ND	ND	ND
SW - SSW @ 7'	D	10/23/13	1357	GRAB	5.2			
W-CTR @ 11'	B	10/23/13	1352	GRAB	5.7	-	-	-
NWC - EB @ 11'	C	10/23/13	1355	GRAB	708	-	-	-
NW - EB @ 16'	E	10/23/13	1402	GRAB	2.7	ND	ND	ND
NWC - EB @ 18'	F	10/23/13	1435	GRAB	0.0			
NW - NSW @ 7.5'	G	10/23/13	1440	GRAB	209	-	-	-
NWC - EB @ 22'	H	10/25/13	1142	GRAB	12.3	11	ND	ND
W (CTR) - EB @ 21'	I	10/25/13	1144	GRAB	0.0	ND	ND	ND
NW - NSW @ 17'	J	10/25/13	1201	GRAB	356	3,410	ND	1.7
NW - NSW @ 20'	K	10/25/13	1203	GRAB	63.9	3,717	ND	0.15
CTR - SSW @ 8'	L	10/28/13	1245	GRAB	0.0	ND	ND	ND
S (CTR) - EB @ 16'	M	10/28/13	1249	GRAB	4.5	ND	ND	ND
CTR - EB @ 18'	N	10/28/13	1251	GRAB	2.0			
CTR - NSW @ 16'	O	10/28/13	1253	GRAB	1.7	ND	ND	ND
CTR - NSW @ 8'	P	10/28/13	1254	GRAB	1.5			
E - ESW @ 8'	Q	10/29/13	1248	GRAB	0.0	ND	ND	ND
E - ESW @ 16'	R	10/29/13	1250	GRAB	1.1			
NW - NSW @ 17' (2)	S	10/29/13	1335	GRAB	46.0	ND	ND	ND
NMOCD RELEASE CLOSURE STANDARDS (soils) -					100	100	10	50

LEGEND

GP-1 ● — GEOPROBE POINT

1 ⊙ — SHALLOW SAMPLE POINT

A ■ — EXCAVATION SAMPLE POINT

SAMPLING POINT LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.
MAGNETIC DECLINATION USED ~ 10° E.

BP AMERICA PRODUCTION CO.

GCU # 265E

NE/4 SW/4 SEC. 25, T28N, R12W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: REMEDIATION
DRAWN BY: NJV
FILENAME: GCU 265E-SM-1.SKF
REVISED: 11-07-13 NJV

SITE MAP

10/13

BP AMERICA PRODUCTION COMPANY

GCU # 265E - (Production Tank Oil Release)

Unit Letter K, Section 25, T28N, R12W - API Number: 30-045-26706

SAMPLE ID & MAP NUMBER OR LETTER DESIGNATION		SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
Source @ surface		10/11/13	0940	GRAB	**365**	-	-	-	DYO sand to silty sand, non cohesive, moist to wet, collected with hand shovel
Source @ 5'		10/11/13	0945	GRAB	**728**	**550**	-	-	DYO sand to silty sand, non cohesive, moist to wet, collected with hand auger
Source @ 10'		10/11/13	0955	GRAB	**266**	**130**	-	-	DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand auger
Source @ 15'		10/11/13	1010	GRAB	**628**	**246**	-	-	DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand auger
GP-1 @ 16'		10/16/13	1218	GRAB	0.0	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-1 @ 20'		10/16/13	1223	GRAB	0.0	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-1 @ 25'		10/16/13	1236	GRAB	0.0	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-2 @ 25'		10/16/13	1340	GRAB	0.0	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
1 @ 4'	**1**	10/23/13	0732	GRAB	**0.6**	-	-	-	All samples: DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand shovel,center of current excavation: 108 ft., S38.5E from well head, dimensions: tape measured at 53 ft. X 41 ft. **7 point composite sample submitted to lab; TPH = ND, benzene = ND, total BTEX = ND.**
2 @ 4'	**2**	10/23/13	0733	GRAB	**6.9**	-	-	-	
3 @ 4'	**3**	10/23/13	0734	GRAB	**0.3**	-	-	-	
4 @ 4'	**4**	10/23/13	0735	GRAB	**1.0**	-	-	-	
5 @ 4'	**5**	10/23/13	0736	GRAB	**0.0**	-	-	-	
N. SIDEWALL @ 4'	**6**	10/23/13	0737	GRAB	**14.8**	ND	ND	ND	
7 @ 4'	**7**	10/23/13	0738	GRAB	**5.4**	-	-	-	
8 @ 4'	**8**	10/23/13	0740	GRAB	**0.5**	-	-	-	
SW - SSW @ 12'	**A**	10/23/13	1350	GRAB	**4.7**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
SW - SSW @ 7'	**D**	10/23/13	1357	GRAB	**5.2**				
W-CTR @ 11'	**B**	10/23/13	1352	GRAB	**5.7**	-	-	-	DYO sand to silty sand, non cohesive, slightly moist
NWC - EB @ 11'	**C**	10/23/13	1355	GRAB	**708**	-	-	-	DYO sand to silty sand, non cohesive, very moist, excavatec
NW - EB @ 16'	**E**	10/23/13	1402	GRAB	**2.7**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
NWC - EB @ 18'	**F**	10/23/13	1435	GRAB	**0.0**				
NW - NSW @ 7.5'	**G**	10/23/13	1440	GRAB	**209**	-	-	-	DYO sand to silty sand, non cohesive, very moist, excavatec
NWC - EB @ 22'	**H**	10/25/13	1142	GRAB	**12.3**	**11**	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
W (CTR) - EB @ 21'	**I**	10/25/13	1144	GRAB	**0.0**	ND	ND	ND	
NW - NSW @ 17'	**J**	10/25/13	1201	GRAB	**356**	**3,410**	ND	**1.7**	DYO sand to silty sand, non cohesive, very moist, excavatec
NW - NSW @ 20'	**K**	10/25/13	1203	GRAB	**63.9**	**3,717**	ND	**0.15**	DYB sand to silty sand, non cohesive, very moist, excavatec
CTR - SSW @ 8'	**L**	10/28/13	1245	GRAB	**0.0**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
S (CTR) - EB @ 16'	**M**	10/28/13	1249	GRAB	**4.5**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
CTR - EB @ 18'	**N**	10/28/13	1251	GRAB	**2.0**				
CTR - NSW @ 16'	**O**	10/28/13	1253	GRAB	**1.7**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
CTR - NSW @ 8'	**P**	10/28/13	1254	GRAB	**1.5**				DYO sand to silty sand, non cohesive, slightly moist
E - ESW @ 8'	**Q**	10/29/13	1248	GRAB	**0.0**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
E - ESW @ 16'	**R**	10/29/13	1250	GRAB	**1.1**				
NW - NSW @ 17' (2)	**S**	10/29/13	1335	GRAB	**46.0**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
NMOCD RELEASE CLOSURE STANDARDS (soils) -					100	100	10	50	

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID)
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B
DYO - Dark yellowish orange

ppm - Parts per million or milligram per kilogram (mg/Kg).
ND - Not detected at Reporting Limit.
NMOCD - New Mexico Oil Conservation Division.
DYB - Dark yellowish brown

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

OVM CALIBRATION: *RESPONSE FACTOR = 0.52 or 1.00 , CALIBRATION GAS - 100 ppm ISOBUTYLENE.*

OVM CALIBRATION DATA

DATE	TIME	READING
10/11/13	1015	99.4
10/23/13	0805	99.4

DATE	TIME	READING
10/25/13	1154	52.4
10/28/13	1306	52.3

DATE	TIME	READING
10/29/13	1340	99.5

BP AMERICA PRODUCTION COMPANY

GCU # 265E - (Production Tank Oil Release)

Unit Letter K, Section 25, T28N, R12W - API Number: 30-045-26706

SAMPLE ID & MAP NUMBER OR LETTER DESIGNATION		SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
Source @ surface		10/11/13	0940	GRAB	**365**	-	-	-	DYO sand to silty sand, non cohesive, moist to wet, collected with hand shovel
Source @ 5'		10/11/13	0945	GRAB	**728**	**550**	-	-	DYO sand to silty sand, non cohesive, moist to wet, collected with hand auger
Source @ 10'		10/11/13	0955	GRAB	**266**	**130**	-	-	DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand auger
Source @ 15'		10/11/13	1010	GRAB	**628**	**246**	-	-	DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand auger
GP-1 @ 16'		10/16/13	1218	GRAB		ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-1 @ 20'		10/16/13	1223	GRAB		ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-1 @ 25'		10/16/13	1236	GRAB		ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
GP-2 @ 25'		10/16/13	1340	GRAB		ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist
1 @ 4'	**1**	10/23/13	0732	GRAB	**0.6**	-	-	-	All samples: DYO sand to silty sand, non cohesive, slightly moist to moist, collected with hand shovel,center of current excavation: 108 ft., S38.5E from well head, dimensions: tape measured at 53 ft. X 41 ft. **7 point composite sample submitted to lab; TPH = ND, benzene = ND, total BTEX = ND.**
2 @ 4'	**2**	10/23/13	0733	GRAB	**6.9**	-	-	-	
3 @ 4'	**3**	10/23/13	0734	GRAB	**0.3**	-	-	-	
4 @ 4'	**4**	10/23/13	0735	GRAB	**1.0**	-	-	-	
5 @ 4'	**5**	10/23/13	0736	GRAB	**0.0**	-	-	-	
N. SIDEWALL @ 4'	**6**	10/23/13	0737	GRAB	**14.8**	ND	ND	ND	
7 @ 4'	**7**	10/23/13	0738	GRAB	**5.4**	-	-	-	
8 @ 4'	**8**	10/23/13	0740	GRAB	**0.5**	-	-	-	
SW - SSW @ 12'	**A**	10/23/13	1350	GRAB	**4.7**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
SW - SSW @ 7'	**D**	10/23/13	1357	GRAB	**5.2**				
W-CTR @ 11'	**B**	10/23/13	1352	GRAB	**5.7**	-	-	-	DYO sand to silty sand, non cohesive, slightly moist
NWC - EB @ 11'	**C**	10/23/13	1355	GRAB	**708**	-	-	-	DYO sand to silty sand, non cohesive, very moist, excavatec
NW - EB @ 16'	**E**	10/23/13	1402	GRAB	**2.7**	ND	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
NWC - EB @ 18'	**F**	10/23/13	1435	GRAB	**0.0**				
NW - NSW @ 7.5'	**G**	10/23/13	1440	GRAB	**209**	-	-	-	DYO sand to silty sand, non cohesive, very moist, excavatec
NWC - EB @ 22'	**H**	10/25/13	1142	GRAB	**12.3**	11	ND	ND	DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
W (CTR) - EB @ 21'	**I**	10/25/13	1144	GRAB	**0.0**	ND	ND	ND	
NW - NSW @ 17'	**J**	10/25/13	1201	GRAB	**356**	**3,410**	ND	**1.7**	DYO sand to silty sand, non cohesive, very moist, excavatec
NW - NSW @ 20'	**K**	10/25/13	1203	GRAB	**63.9**	**3,717**	ND	**0.15**	DYB sand to silty sand, non cohesive, very moist, excavatec
CTR - SSW @ 8'	**L**	10/28/13	1245	GRAB	**0.0**				DYO sand to silty sand, non cohesive, slightly moist
S (CTR) - EB @ 16'	**M**	10/28/13	1249	GRAB	**4.5**				DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
CTR - EB @ 18'	**N**	10/28/13	1251	GRAB	**2.0**				
CTR - NSW @ 16'	**O**	10/28/13	1253	GRAB	**1.7**				DYO sand to silty sand, non cohesive, slightly moist
CTR - NSW @ 8'	**P**	10/28/13	1254	GRAB	**1.5**				DYO sand to silty sand, non cohesive, slightly moist
E - ESW @ 8'	**Q**	10/29/13	1248	GRAB	**0.0**				DYO sand to silty sand, non cohesive, slightly moist, **2 pt. composite lab sample**
E - ESW @ 16'	**R**	10/29/13	1250	GRAB	**1.1**				
NW - NSW @ 17' (2)	**S**	10/29/13	1335	GRAB	**46.0**				DYO sand to silty sand, non cohesive, slightly moist
NMOCD RELEASE CLOSURE STANDARDS (soils) -					100	100	10	50	

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID)
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B
DYO - Dark yellowish orange

ppm - Parts per million or milligram per kilogram (mg/Kg).
ND - Not detected at Reporting Limit.
NMOCD - New Mexico Oil Conservation Division.
DYB - Dark yellowish brown

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

OVM CALIBRATION: *RESPONSE FACTOR = 0.52 or 1.00 , CALIBRATION GAS - 100 ppm ISOBUTYLENE.*

OVM CALIBRATION DATA

DATE	TIME	READING
10/11/13	1015	99.4
10/23/13	0805	99.4

DATE	TIME	READING
10/25/13	1154	52.4
10/28/13	1306	52.3

DATE	TIME	READING
10/29/13	1340	99.5

Analytical Report
Lab Order **1310620**
Date Reported: **10/16/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310620-001 **Matrix:** SOIL

Client Sample ID: Source @ -5'
Collection Date: 10/11/2013 9:45:00 AM
Received Date: 10/12/2013 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	500	9.9		mg/Kg	1	10/15/2013 2:19:31 PM	9801
Motor Oil Range Organics (MRO)	210	50		mg/Kg	1	10/15/2013 2:19:31 PM	9801
Surr: DNOP	107	63-147		%REC	1	10/15/2013 2:19:31 PM	9801
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	50	25		mg/Kg	5	10/15/2013 3:13:54 PM	9793
Surr: BFB	155	74.5-129	S	%REC	5	10/15/2013 3:13:54 PM	9793
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	950	20		mg/Kg	1	10/14/2013	9799

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: Source @ -10'
Project: GCU 265E
Collection Date: 10/11/2013 9:55:00 AM
Lab ID: 1310620-002
Matrix: SOIL
Received Date: 10/12/2013 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	130	10		mg/Kg	1	10/15/2013 3:30:58 PM	9801
Motor Oil Range Organics (MRO)	140	50		mg/Kg	1	10/15/2013 3:30:58 PM	9801
Surr: DNOP	98.9	63-147		%REC	1	10/15/2013 3:30:58 PM	9801
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/15/2013 4:11:01 PM	9793
Surr: BFB	108	74.5-129		%REC	1	10/15/2013 4:11:01 PM	9793
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	310	20		mg/Kg	1	10/14/2013	9799

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310620-003 **Matrix:** SOIL

Client Sample ID: Source @ -15'
Collection Date: 10/11/2013 10:10:00 AM
Received Date: 10/12/2013 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	230	10		mg/Kg	1	10/15/2013 3:53:04 PM	9801
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	10/15/2013 3:53:04 PM	9801
Surr: DNOP	99.8	63-147		%REC	1	10/15/2013 3:53:04 PM	9801
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	16	4.9		mg/Kg	1	10/15/2013 4:39:31 PM	9793
Surr: BFB	215	74.5-129	S	%REC	1	10/15/2013 4:39:31 PM	9793
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	500	20		mg/Kg	1	10/14/2013	9799

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310620**

16-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **MB-9799**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **9799**	RunNo: **14050**
Prep Date: **10/14/2013**	Analysis Date: **10/14/2013**	SeqNo: **401983** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-9799**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **9799**	RunNo: **14050**
Prep Date: **10/14/2013**	Analysis Date: **10/14/2013**	SeqNo: **401984** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	112	80	120			

Sample ID **LCSD-9799**	SampType: **LCSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS02**	Batch ID: **9799**	RunNo: **14050**
Prep Date: **10/14/2013**	Analysis Date: **10/14/2013**	SeqNo: **401985** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	108	80	120	3.68	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310620**

16-Oct-13

Client: Blagg Engineering
Project: GCU 265E

Sample ID	**MB-9822**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID: **9822**		RunNo: **14066**					
Prep Date:	**10/15/2013**	Analysis Date: **10/15/2013**		SeqNo: **402767**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.4	63	147			

Sample ID	**LCS-9822**	SampType: **LCS**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID: **9822**		RunNo: **14066**					
Prep Date:	**10/15/2013**	Analysis Date: **10/15/2013**		SeqNo: **402894**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	63	147			

Sample ID	**LCS-9801**	SampType: **LCS**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID: **9801**		RunNo: **14066**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403125**		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	98.3	77.1	128			
Surr: DNOP	5.0		5.000		99.2	63	147			

Sample ID	**MB-9801**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID: **9801**		RunNo: **14066**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403236**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	63	147			

Sample ID	**1310620-001AMS**	SampType: **MS**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**Source @ -5'**	Batch ID: **9801**		RunNo: **14066**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403238**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	590	9.9	49.55	499.7	188	61.3	138			S
Surr: DNOP	5.7		4.955		115	63	147			

Sample ID	**1310620-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**Source @ -5'**	Batch ID: **9801**		RunNo: **14066**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403262**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	590	9.9	49.50	499.7	174	61.3	138	1.23	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310620**

16-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID	**1310620-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**Source @ -5'**	Batch ID: **9801**		RunNo: **14066**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403262**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.7		4.950		116	63	147	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310620**

16-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **MB-9793**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **9793**	RunNo: **14068**
Prep Date: **10/13/2013**	Analysis Date: **10/14/2013**	SeqNo: **402644** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.2	74.5	129			

Sample ID **LCS-9793**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **9793**	RunNo: **14068**
Prep Date: **10/13/2013**	Analysis Date: **10/14/2013**	SeqNo: **402645** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	74.5	126			
Surr: BFB	940		1000		93.7	74.5	129			

Sample ID **MB-9793 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14068**	RunNo: **14068**
Prep Date:	Analysis Date: **10/14/2013**	SeqNo: **402649** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		86.2	74.5	129			

Sample ID **LCS-9793 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14068**	RunNo: **14068**
Prep Date:	Analysis Date: **10/14/2013**	SeqNo: **402650** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.7	74.5	129			

Sample ID **MB-9811 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14079**	RunNo: **14079**
Prep Date:	Analysis Date: **10/15/2013**	SeqNo: **403460** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.5	74.5	129			

Sample ID **LCS-9811 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14079**	RunNo: **14079**
Prep Date:	Analysis Date: **10/15/2013**	SeqNo: **403461** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.4	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310620**

16-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID	**MB-9811**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **9811**		RunNo: **14079**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403465**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.5	74.5	129			

Sample ID	**LCS-9811**	SampType: **LCS**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **9811**		RunNo: **14079**					
Prep Date:	**10/14/2013**	Analysis Date: **10/15/2013**		SeqNo: **403466**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.4	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310620 | RcptNo: 1

Received by/date: AT 10/12/13

Logged By: Anne Thorne 10/12/2013 10:15:00 AM

Completed By: Anne Thorne 10/12/2013

Reviewed By: AT 10/12/13

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: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. BOX 87
BLOOMFIELD NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time: SAME DAY MONDAY 10/14/2013 ON 418.1
☐ Standard ☒ Rush BY FRI. 10/18/2013 ON 8015B
Project Name: GCU 265E
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. 1310925	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO) (Yes)	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)
10/11/2013	0945	SOIL	SOURCE @ -5'	4 oz x1	COOL	-001			X	X								
"	0955	"	SOURCE @ -10'	"	"	-002			X	X								
"	1010	"	SOURCE @ -15'	"	"	-003			X	X								

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/11/2013	1355	Jeff Blagg	Christine Walker	10/11/2013	1355
10/11/13	1715	Christine Walker		10/12/13	715

Remarks: BILL BLAGG

BP Contact: JEFF PEACE

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.

Analytical Report
Lab Order **1310843**
Date Reported: **10/21/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-1@16'
Project: GCU 265E
Collection Date: 10/16/2013 12:18:00 PM
Lab ID: 1310843-001
Matrix: MEOH (SOIL)
Received Date: 10/17/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/17/2013 12:33:22 PM	9886
Surr: DNOP	103	63-147		%REC	1	10/17/2013 12:33:22 PM	9886
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/17/2013 1:21:19 PM	R14160
Surr: BFB	84.8	74.5-129		%REC	1	10/17/2013 1:21:19 PM	R14160
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/17/2013 1:21:19 PM	R14160
Toluene	ND	0.050		mg/Kg	1	10/17/2013 1:21:19 PM	R14160
Ethylbenzene	ND	0.050		mg/Kg	1	10/17/2013 1:21:19 PM	R14160
Xylenes, Total	ND	0.10		mg/Kg	1	10/17/2013 1:21:19 PM	R14160
Surr: 4-Bromofluorobenzene	97.1	80-120		%REC	1	10/17/2013 1:21:19 PM	R14160
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	1.5		mg/Kg	1	10/17/2013 3:01:28 PM	9888

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310843-002
Matrix: MEOH (SOIL)
Client Sample ID: GP-1@20'
Collection Date: 10/16/2013 12:23:00 PM
Received Date: 10/17/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/17/2013 1:17:27 PM	9886
Surr: DNOP	106	63-147		%REC	1	10/17/2013 1:17:27 PM	9886
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/17/2013 1:49:59 PM	R14160
Surr: BFB	77.6	74.5-129		%REC	1	10/17/2013 1:49:59 PM	R14160
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/17/2013 1:49:59 PM	R14160
Toluene	ND	0.050		mg/Kg	1	10/17/2013 1:49:59 PM	R14160
Ethylbenzene	ND	0.050		mg/Kg	1	10/17/2013 1:49:59 PM	R14160
Xylenes, Total	ND	0.10		mg/Kg	1	10/17/2013 1:49:59 PM	R14160
Surr: 4-Bromofluorobenzene	85.1	80-120		%REC	1	10/17/2013 1:49:59 PM	R14160
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	1.5		mg/Kg	1	10/17/2013 3:26:17 PM	9888

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-1@25'
Project: GCU 265E
Collection Date: 10/16/2013 12:36:00 PM
Lab ID: 1310843-003
Matrix: MEOH (SOIL)
Received Date: 10/17/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/17/2013 1:39:32 PM	9886
Surr: DNOP	105	63-147		%REC	1	10/17/2013 1:39:32 PM	9886
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/17/2013 2:18:36 PM	R14160
Surr: BFB	79.7	74.5-129		%REC	1	10/17/2013 2:18:36 PM	R14160
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/17/2013 2:18:36 PM	R14160
Toluene	ND	0.050		mg/Kg	1	10/17/2013 2:18:36 PM	R14160
Ethylbenzene	ND	0.050		mg/Kg	1	10/17/2013 2:18:36 PM	R14160
Xylenes, Total	ND	0.10		mg/Kg	1	10/17/2013 2:18:36 PM	R14160
Surr: 4-Bromofluorobenzene	89.3	80-120		%REC	1	10/17/2013 2:18:36 PM	R14160
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	7.5		mg/Kg	5	10/17/2013 3:51:06 PM	9888

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-2@25'
Project: GCU 265E
Collection Date: 10/16/2013 1:40:00 PM
Lab ID: 1310843-004
Matrix: MEOH (SOIL)
Received Date: 10/17/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/17/2013 2:01:30 PM	9886
Surr: DNOP	107	63-147		%REC	1	10/17/2013 2:01:30 PM	9886
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/17/2013 2:47:14 PM	R14160
Surr: BFB	75.8	74.5-129		%REC	1	10/17/2013 2:47:14 PM	R14160
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/17/2013 2:47:14 PM	R14160
Toluene	ND	0.050		mg/Kg	1	10/17/2013 2:47:14 PM	R14160
Ethylbenzene	ND	0.050		mg/Kg	1	10/17/2013 2:47:14 PM	R14160
Xylenes, Total	ND	0.10		mg/Kg	1	10/17/2013 2:47:14 PM	R14160
Surr: 4-Bromofluorobenzene	83.1	80-120		%REC	1	10/17/2013 2:47:14 PM	R14160
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	1.5		mg/Kg	1	10/17/2013 4:40:45 PM	9888

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310843**

21-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID	**MB-9888**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**9888**	RunNo:	**14185**				
Prep Date:	**10/17/2013**	Analysis Date:	**10/17/2013**	SeqNo:	**406219**	Units:	**mg/Kg**		

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

Sample ID	**LCS-9888**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**9888**	RunNo:	**14185**				
Prep Date:	**10/17/2013**	Analysis Date:	**10/17/2013**	SeqNo:	**406220**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

JD

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310843**

21-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **MB-9886**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **9886**	RunNo: **14149**
Prep Date: **10/17/2013**	Analysis Date: **10/17/2013**	SeqNo: **405466** 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	63	147			

Sample ID **LCS-9886**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **9886**	RunNo: **14149**
Prep Date: **10/17/2013**	Analysis Date: **10/17/2013**	SeqNo: **405467** 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	92.1	77.1	128			
Surr: DNOP	4.5		5.000		89.3	63	147			

Sample ID **MB-9905**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406691** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		100	66	131			

Sample ID **LCS-9905**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406692** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.3	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310843**

21-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **MB-9871 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14160**	RunNo: **14160**
Prep Date:	Analysis Date: **10/17/2013**	SeqNo: **405986** 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	830		1000		82.6	74.5	129			

Sample ID **LCS-9871 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14160**	RunNo: **14160**
Prep Date:	Analysis Date: **10/17/2013**	SeqNo: **406000** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.5	126			
Surr: BFB	940		1000		93.6	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310843**

21-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **MB-9871 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R14160**	RunNo: **14160**
Prep Date:	Analysis Date: **10/17/2013**	SeqNo: **406126** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.9	80	120			

Sample ID **LCS-9871 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R14160**	RunNo: **14160**
Prep Date:	Analysis Date: **10/17/2013**	SeqNo: **406127** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.5	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310843 RcptNo: 1

Received by/date: UMG 10/17/13

Logged By: Ashley Gallegos 10/17/2013 9:50:00 AM AG

Completed By: Ashley Gallegos 10/17/2013 10:12:22 AM AG

Reviewed By: 10/17/13

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	1.0	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
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: By FRIDAY 10/18/2013
☐ Standard ☒ Rush
Project Name: GCU 265E
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☑ Yes ☐ No
Sample Temperature:

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. 1310842	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)	CHLORIDES				Air Bubbles (Y or N)
9/16/2013	1218	SOIL	GP-1 @ 16'	4oz x1		-001	X		X									X				
"	1223	"	GP-1 @ 20'	"		-002	X		X									X				
"	1236	"	GP-1 @ 25'	"		-003	X		X									X				
"	1340	"	GP-2 @ 25'	"		-004	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/16/2013	1610	Jeff Blagg	Christine Walker	10/16/2013	1610
9/16/13	1800	Christine Walker	Michelle Gee	10/17/13	0950

Remarks: BILL BLAGG

BP CONTACT JEFF PEACE

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.

Analytical Report
Lab Order **1310C61**
Date Reported: **10/29/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310C61-001 **Matrix:** SOIL

Client Sample ID: NWC-EB @ 22'
Collection Date: 10/25/2013 11:42:00 AM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	11	10		mg/Kg	1	10/28/2013 10:31:56 PM	10040
Surr: DNOP	98.7	66-131		%REC	1	10/28/2013 10:31:56 PM	10040
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 3:01:47 PM	R14380
Surr: BFB	93.0	74.5-129		%REC	1	10/28/2013 3:01:47 PM	R14380
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/28/2013 3:01:47 PM	R14380
Toluene	ND	0.050		mg/Kg	1	10/28/2013 3:01:47 PM	R14380
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 3:01:47 PM	R14380
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 3:01:47 PM	R14380
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	10/28/2013 3:01:47 PM	R14380

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Analytical Report
Lab Order **1310C61**
Date Reported: **10/29/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310C61-002 **Matrix:** SOIL

Client Sample ID: W (CTR)-EB @ 21'
Collection Date: 10/25/2013 11:44:00 AM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/28/2013 10:53:52 PM	10040
Surr: DNOP	94.2	66-131		%REC	1	10/28/2013 10:53:52 PM	10040
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 3:32:01 PM	R14380
Surr: BFB	93.6	74.5-129		%REC	1	10/28/2013 3:32:01 PM	R14380
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/28/2013 3:32:01 PM	R14380
Toluene	ND	0.050		mg/Kg	1	10/28/2013 3:32:01 PM	R14380
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 3:32:01 PM	R14380
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 3:32:01 PM	R14380
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	10/28/2013 3:32:01 PM	R14380

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310C61-003 **Matrix:** SOIL

Client Sample ID: NW-NSW @ 17'
Collection Date: 10/25/2013 12:01:00 PM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	3200	100		mg/Kg	10	10/28/2013 11:15:49 PM	10040
Surr: DNOP	0	66-131	S	%REC	10	10/28/2013 11:15:49 PM	10040
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	210	25		mg/Kg	5	10/28/2013 4:02:07 PM	R14380
Surr: BFB	361	74.5-129	S	%REC	5	10/28/2013 4:02:07 PM	R14380
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.25		mg/Kg	5	10/28/2013 4:02:07 PM	R14380
Toluene	ND	0.25		mg/Kg	5	10/28/2013 4:02:07 PM	R14380
Ethylbenzene	ND	0.25		mg/Kg	5	10/28/2013 4:02:07 PM	R14380
Xylenes, Total	1.7	0.50		mg/Kg	5	10/28/2013 4:02:07 PM	R14380
Surr: 4-Bromofluorobenzene	109	80-120		%REC	5	10/28/2013 4:02:07 PM	R14380

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310C61-004
Matrix: SOIL
Client Sample ID: NW-NSW @ 20'
Collection Date: 10/25/2013 12:03:00 PM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	3700	100		mg/Kg	10	10/28/2013 11:37:43 PM	10040
Surr: DNOP	0	66-131	S	%REC	10	10/28/2013 11:37:43 PM	10040
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	17	5.0		mg/Kg	1	10/28/2013 4:32:18 PM	R14380
Surr: BFB	158	74.5-129	S	%REC	1	10/28/2013 4:32:18 PM	R14380
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/28/2013 4:32:18 PM	R14380
Toluene	ND	0.050		mg/Kg	1	10/28/2013 4:32:18 PM	R14380
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 4:32:18 PM	R14380
Xylenes, Total	0.15	0.10		mg/Kg	1	10/28/2013 4:32:18 PM	R14380
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/28/2013 4:32:18 PM	R14380

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C61**

29-Oct-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10040**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10040**	RunNo: **14373**
Prep Date: **10/28/2013**	Analysis Date: **10/28/2013**	SeqNo: **412964** 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		104	66	131			

Sample ID **LCS-10040**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10040**	RunNo: **14373**
Prep Date: **10/28/2013**	Analysis Date: **10/28/2013**	SeqNo: **412965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	77.1	128			
Surr: DNOP	5.1		5.000		103	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C61**

29-Oct-13

Client: Blagg Engineering
Project: GCU #265E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413598** 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		93.0	74.5	129			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74.5	126			
Surr: BFB	990		1000		99.4	74.5	129			

Sample ID **1310C61-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **NWC-EB @ 22'**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413605** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	17.66	0	89.8	76	156			
Surr: BFB	700		706.2		99.2	74.5	129			

Sample ID **1310C61-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **NWC-EB @ 22'**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413606** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	17.66	0	87.3	76	156	2.80	17.7	
Surr: BFB	700		706.2		98.6	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C61**

29-Oct-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
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 **1310C61-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **W (CTR)-EB @ 21'**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413630** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.52	0.050	0.7479	0	69.4	67.3	145			
Toluene	0.53	0.050	0.7479	0.01285	69.0	66.8	144			
Ethylbenzene	0.54	0.050	0.7479	0	72.8	61.9	153			
Xylenes, Total	1.7	0.10	2.244	0.01828	76.7	65.8	149			
Surr: 4-Bromofluorobenzene	0.78		0.7479		105	80	120			

Sample ID **1310C61-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **W (CTR)-EB @ 21'**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413631** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.51	0.050	0.7479	0	68.2	67.3	145	1.69	20	
Toluene	0.52	0.050	0.7479	0.01285	67.4	66.8	144	2.39	20	
Ethylbenzene	0.53	0.050	0.7479	0	70.9	61.9	153	2.60	20	
Xylenes, Total	1.7	0.10	2.244	0.01828	75.3	65.8	149	1.91	20	
Surr: 4-Bromofluorobenzene	0.75		0.7479		101	80	120	0	0	

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413787** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.1	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310C61 | RcptNo: 1

Received by/date: AF 10/26/13

Logged By: Anne Thorne 10/26/2013 10:20:00 AM

Completed By: Anne Thorne 10/28/2013

Reviewed By: IO 10/28/13

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	3.3	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 24 HR.

Project Name:
GCU #265E

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☐ Yes ☐ No

Sample Temperature:

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
10/29/13	1335	SOIL	NW -NSW @ 17' (2)	4 oz. - 1	Cool		√		√											√		

Date	Time	Relinquished by:	Received by:	Date	Time
10/30/13					
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: TPH (8015B) - GRO & DRO ONLY.

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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)

☐ Standard ☑ Rush 24 HR.

Project Name: GCU #265E

Project #:

Project Manager: JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.3

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. 1310641	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO ~~/ MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
10/25/13	1142	SOIL	NWC - EB @ 22'	4 oz. - 1	Cool	-001	✓		✓											✓		
10/25/13	1144	SOIL	W (CTR) - EB @ 21'	4 oz. - 1	Cool	-002	✓		✓											✓		
10/25/13	1201	SOIL	NW -NSW @ 17'	4 oz. - 1	Cool	-003	✓		✓											✓		
10/25/13	1203	SOIL	NW -NSW @ 20'	4 oz. - 1	Cool	-004	✓		✓											✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/25/13	1439			10/25/13	1439
10/25/13	1742			10/26/13	10:20

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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.

Analytical Report
Lab Order **1310C84**
Date Reported: **10/29/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310C84-001 **Matrix:** SOIL

Client Sample ID: SIDEWALL CIRCUMFERENC
Collection Date: 10/23/2013 7:32:00 AM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/28/2013 11:59:46 PM
Surr: DNOP	95.4	66-131		%REC	1	10/28/2013 11:59:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 5:02:35 PM
Surr: BFB	92.4	74.5-129		%REC	1	10/28/2013 5:02:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/28/2013 5:02:35 PM
Toluene	ND	0.050		mg/Kg	1	10/28/2013 5:02:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 5:02:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 5:02:35 PM
Surr: 4-Bromofluorobenzene	99.2	80-120		%REC	1	10/28/2013 5:02:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	10/28/2013 1:19:56 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310C84-002 **Matrix:** SOIL

Client Sample ID: N SIDEWALL @ 4'
Collection Date: 10/23/2013 7:37:00 AM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/29/2013 12:21:35 AM
Surr: DNOP	94.2	66-131		%REC	1	10/29/2013 12:21:35 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 10:06:59 PM
Surr: BFB	90.4	74.5-129		%REC	1	10/28/2013 10:06:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/28/2013 10:06:59 PM
Toluene	ND	0.050		mg/Kg	1	10/28/2013 10:06:59 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 10:06:59 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 10:06:59 PM
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	10/28/2013 10:06:59 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	10/28/2013 1:32:21 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310C84-003 **Matrix:** SOIL

Client Sample ID: SWC 2-pt COMP 7'-12'
Collection Date: 10/23/2013 1:50:00 PM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/29/2013 12:43:37 AM
Surr: DNOP	100	66-131		%REC	1	10/29/2013 12:43:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 10:37:12 PM
Surr: BFB	93.8	74.5-129		%REC	1	10/28/2013 10:37:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/28/2013 10:37:12 PM
Toluene	ND	0.050		mg/Kg	1	10/28/2013 10:37:12 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 10:37:12 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 10:37:12 PM
Surr: 4-Bromofluorobenzene	97.9	80-120		%REC	1	10/28/2013 10:37:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	10/28/2013 1:44:45 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU 265E
Lab ID: 1310C84-004 **Matrix:** SOIL

Client Sample ID: NWC 2-pt COMP 16'-18'
Collection Date: 10/23/2013 2:02:00 PM
Received Date: 10/26/2013 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/29/2013 1:05:34 AM
Surr: DNOP	95.5	66-131		%REC	1	10/29/2013 1:05:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/28/2013 11:07:30 PM
Surr: BFB	92.7	74.5-129		%REC	1	10/28/2013 11:07:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/28/2013 11:07:30 PM
Toluene	ND	0.050		mg/Kg	1	10/28/2013 11:07:30 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/28/2013 11:07:30 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/28/2013 11:07:30 PM
Surr: 4-Bromofluorobenzene	95.7	80-120		%REC	1	10/28/2013 11:07:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	ND	30		mg/Kg	20	10/28/2013 1:57:10 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310C84

29-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID	MB-10046	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	10046	RunNo:	14404					
Prep Date:	10/28/2013	Analysis Date:	10/28/2013	SeqNo:	413725	Units:	mg/Kg			

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

Sample ID	LCS-10046	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	10046	RunNo:	14404					
Prep Date:	10/28/2013	Analysis Date:	10/28/2013	SeqNo:	413726	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C84**

29-Oct-13

Client: Blagg Engineering
Project: GCU 265E

Sample ID **MB-10040**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10040**	RunNo: **14373**
Prep Date: **10/28/2013**	Analysis Date: **10/28/2013**	SeqNo: **412964** 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		104	66	131			

Sample ID **LCS-10040**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10040**	RunNo: **14373**
Prep Date: **10/28/2013**	Analysis Date: **10/28/2013**	SeqNo: **412965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	77.1	128			
Surr: DNOP	5.1		5.000		103	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C84**

29-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413598** 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		93.0	74.5	129			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74.5	126			
Surr: BFB	990		1000		99.4	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C84**

29-Oct-13

Client: Blagg Engineering

Project: GCU 265E

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
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 **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R14380**	RunNo: **14380**
Prep Date:	Analysis Date: **10/28/2013**	SeqNo: **413787** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.1	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310C84 RcptNo: 1

Received by/date: AF 10/26/13

Logged By: Anne Thorne 10/26/2013 10:20:00 AM Anne Thorne

Completed By: Anne Thorne 10/28/2013 Anne Thorne

Reviewed By: TO 10/28/13

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	3.3	Good	Not Present			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
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: By Tuesday 10/29/2013
☐ Standard ☒ Rush
Project Name: GCU 265E
Project #:
Project Manager: JEFF BLAGG
Sampler: Jeff Blagg
On Ice: ☒ Yes ☐ No
Sample Temperature: 5.3

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 # (10/28/13)	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)
9/23/13	0732	SOIL	SIDEWALL CIRCUMFERENCE 7-PT @ 4'	4oz x 1 MeOH Kit	COOL	001	X		X									X				
"	0737	"	N SIDEWALL @ 4'	"	"	002	X		X									X				
"	1350	"	SWC 2-PT COMP 7'-12'	"	"	003	X		X									X				
"	1402	"	NWC 2-PT COMP. 16'-18'	"	"	004	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/25/2013	1439		Christine Walters	9/25/2013	1439
9/25/13	1742	Christine Walters		10/4/13	10:20

Remarks: BILL BLAGG

BP Contact: JEFF PEACE

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.

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 72 HR.

Project Name:
GCU #265E

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☐ Yes ☐ No

Sample Temperature:

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.	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	2 pt. composite sample	Air Bubbles (Y or N)
Analysis Request																						
10/28/13	1245	SOIL	CTR - SSW @ 8'	4 oz. - 1	Cool		√		√											√		
10/28/13	1251	SOIL	2PC - CTR/S - EB @ 16' & 18'	4 oz. - 1	Cool		√		√												√	
10/28/13	1254	SOIL	2PC - CTR/NSW @ 8' & 16'	4 oz. - 1	Cool		√		√												√	

Date	Time	Relinquished by:	Received by:	Date	Time
10/29/13					

Remarks:
Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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 72 HR.

Project Name:
GCU #265E

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☐ Yes ☐ No

Sample Temperature:

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.	Analysis Request: BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	2 pt. composite sample	Air Bubbles (Y or N)
10/29/13	1250	SOIL	2PC - E - ESW @ 8' & 16'	4 oz. - 1	Cool		√		√												√	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/30/13					
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

Analytical Report
Lab Order **1310D95**
Date Reported: **11/4/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310D95-001 **Matrix:** SOIL

Client Sample ID: CTR-SSW@8'
Collection Date: 10/28/2013 12:45:00 PM
Received Date: 10/30/2013 9:44:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/1/2013 4:11:34 PM	10124
Surr: DNOP	91.1	66-131		%REC	1	11/1/2013 4:11:34 PM	10124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/31/2013 1:07:32 PM	10112
Surr: BFB	99.3	74.5-129		%REC	1	10/31/2013 1:07:32 PM	10112
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	10/31/2013 1:07:32 PM	10112
Toluene	ND	0.047		mg/Kg	1	10/31/2013 1:07:32 PM	10112
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2013 1:07:32 PM	10112
Xylenes, Total	ND	0.095		mg/Kg	1	10/31/2013 1:07:32 PM	10112
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	10/31/2013 1:07:32 PM	10112

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Analytical Report
Lab Order **1310D95**
Date Reported: **11/4/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310D95-002 **Matrix:** SOIL

Client Sample ID: 2PC-CTR/S-EB@16'&18'
Collection Date: 10/28/2013 12:51:00 PM
Received Date: 10/30/2013 9:44:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/1/2013 4:33:38 PM	10124
Surr: DNOP	91.9	66-131		%REC	1	11/1/2013 4:33:38 PM	10124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/31/2013 2:33:18 PM	10112
Surr: BFB	97.3	74.5-129		%REC	1	10/31/2013 2:33:18 PM	10112
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	10/31/2013 2:33:18 PM	10112
Toluene	ND	0.047		mg/Kg	1	10/31/2013 2:33:18 PM	10112
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2013 2:33:18 PM	10112
Xylenes, Total	ND	0.095		mg/Kg	1	10/31/2013 2:33:18 PM	10112
Surr: 4-Bromofluorobenzene	119	80-120		%REC	1	10/31/2013 2:33:18 PM	10112

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310D95-003 **Matrix:** SOIL

Client Sample ID: 2PC-CTR/NSW@8'&16'
Collection Date: 10/28/2013 12:54:00 PM
Received Date: 10/30/2013 9:44:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/1/2013 4:55:37 PM	10124
Surr: DNOP	92.7	66-131		%REC	1	11/1/2013 4:55:37 PM	10124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/31/2013 3:01:49 PM	10112
Surr: BFB	97.4	74.5-129		%REC	1	10/31/2013 3:01:49 PM	10112
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	10/31/2013 3:01:49 PM	10112
Toluene	ND	0.048		mg/Kg	1	10/31/2013 3:01:49 PM	10112
Ethylbenzene	ND	0.048		mg/Kg	1	10/31/2013 3:01:49 PM	10112
Xylenes, Total	ND	0.096		mg/Kg	1	10/31/2013 3:01:49 PM	10112
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	10/31/2013 3:01:49 PM	10112

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

50

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310D95**

04-Nov-13

Client: Blagg Engineering
Project: GCU #265E

Sample ID **MB-10124**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10124**	RunNo: **14475**
Prep Date: **10/31/2013**	Analysis Date: **10/31/2013**	SeqNo: **416119** 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		102	66	131			

Sample ID **LCS-10124**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10124**	RunNo: **14475**
Prep Date: **10/31/2013**	Analysis Date: **10/31/2013**	SeqNo: **416120** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.2	77.1	128			
Surr: DNOP	4.6		5.000		91.9	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310D95**

04-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10112**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416360** 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		96.4	74.5	129			

Sample ID **LCS-10112**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416361** 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	99.0	74.5	126			
Surr: BFB	1100		1000		105	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310D95**

04-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10112**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID **LCS-10112**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416390** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.6	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	80	120			S

Sample ID **1310D95-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CTR-SSW@8'**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416392** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.047	0.9461	0	96.9	67.3	145			
Toluene	0.95	0.047	0.9461	0.006847	99.4	66.8	144			
Ethylbenzene	0.97	0.047	0.9461	0	103	61.9	153			
Xylenes, Total	2.9	0.095	2.838	0	104	65.8	149			
Surr: 4-Bromofluorobenzene	1.2		0.9461		124	80	120			S

Sample ID **1310D95-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CTR-SSW@8'**	Batch ID: **10112**	RunNo: **14496**
Prep Date: **10/30/2013**	Analysis Date: **10/31/2013**	SeqNo: **416393** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.047	0.9452	0	102	67.3	145	5.24	20	
Toluene	1.0	0.047	0.9452	0.006847	105	66.8	144	5.76	20	
Ethylbenzene	1.0	0.047	0.9452	0	107	61.9	153	3.89	20	
Xylenes, Total	3.1	0.095	2.836	0	109	65.8	149	4.63	20	
Surr: 4-Bromofluorobenzene	1.2		0.9452		125	80	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310D95 | RcptNo: 1

Received by/date: 10/30/13

Logged By: Ashley Gallegos 10/30/2013 9:44:00 AM

Completed By: Ashley Gallegos 10/30/2013 9:48:05 AM

Reviewed By: IO 10/30/13

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	1.0	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:	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)
☐ Standard	☑ Rush 72 HR.
Project Name:	GCU #265E
Project #:	
Project Manager:	JEFF BLAGG
Sampler:	NELSON VELEZ
On Ice:	☑ Yes ☐ No
Sample Temperature:	1 (°)

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1310095	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	2 pt. composite sample	
10/28/13	1245	SOIL	CTR - SSW @ 8'	4 oz. - 1	Cool	-001	✓		✓											✓		
10/28/13	1251	SOIL	2PC - CTR/S - EB @ 16' & 18'	4 oz. - 1	Cool	-002	✓		✓												✓	
10/28/13	1254	SOIL	2PC - CTR/NSW @ 8' & 16'	4 oz. - 1	Cool	-003	✓		✓												✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/29/13	832			10/29/13	832
Date:	Time:	Relinquished by:	Received by:	Date	Time
10/29/13	1746			10/30/13	0944

Remarks:

Send invoice to :

Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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.

Analytical Report
Lab Order **1310E46**
Date Reported: **11/5/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310E46-001 **Matrix:** SOIL

Client Sample ID: 2PC - E - ESW @ 8' & 16'
Collection Date: 10/29/2013 12:50:00 PM
Received Date: 10/31/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/4/2013 6:09:31 PM	10142
Surr: DNOP	102	66-131		%REC	1	11/4/2013 6:09:31 PM	10142
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/4/2013 12:29:09 PM	10143
Surr: BFB	90.3	74.5-129		%REC	1	11/4/2013 12:29:09 PM	10143
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	11/4/2013 12:29:09 PM	10143
Toluene	ND	0.048		mg/Kg	1	11/4/2013 12:29:09 PM	10143
Ethylbenzene	ND	0.048		mg/Kg	1	11/4/2013 12:29:09 PM	10143
Xylenes, Total	ND	0.095		mg/Kg	1	11/4/2013 12:29:09 PM	10143
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	11/4/2013 12:29:09 PM	10143

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E46**

05-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **LCS-10142**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10142**	RunNo: **14536**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **417961** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.0	77.1	128			
Surr: DNOP	4.5		5.000		90.7	66	131			

Sample ID **MB-10142**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10142**	RunNo: **14536**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418362** 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		102	66	131			

Sample ID **1310E46-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **2PC - E - ESW @ 8'**	Batch ID: **10142**	RunNo: **14536**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418386** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.20	0	99.4	61.3	138			
Surr: DNOP	4.7		5.020		94.0	66	131			

Sample ID **1310E46-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **2PC - E - ESW @ 8'**	Batch ID: **10142**	RunNo: **14536**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418388** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.10	0	112	61.3	138	11.3	20	
Surr: DNOP	4.9		5.010		97.7	66	131	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E46**

05-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10143**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418282** 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	900		1000		89.7	74.5	129			

Sample ID **LCS-10143**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418283** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.5	126			
Surr: BFB	970		1000		97.3	74.5	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E46**

05-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10143**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418316** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID **LCS-10143**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID **1310E46-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **2PC - E - ESW @ 8'**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418320** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.047	0.9452	0.006857	94.7	67.3	145			
Toluene	0.95	0.047	0.9452	0.007781	99.7	66.8	144			
Ethylbenzene	0.96	0.047	0.9452	0	101	61.9	153			
Xylenes, Total	2.9	0.095	2.836	0	102	65.8	149			
Surr: 4-Bromofluorobenzene	1.1		0.9452		113	80	120			

Sample ID **1310E46-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **2PC - E - ESW @ 8'**	Batch ID: **10143**	RunNo: **14567**
Prep Date: **11/1/2013**	Analysis Date: **11/4/2013**	SeqNo: **418322** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.047	0.9452	0.006857	92.0	67.3	145	2.87	20	
Toluene	0.90	0.047	0.9452	0.007781	94.9	66.8	144	4.93	20	
Ethylbenzene	0.93	0.047	0.9452	0	97.9	61.9	153	3.20	20	
Xylenes, Total	2.8	0.095	2.836	0	99.2	65.8	149	2.81	20	
Surr: 4-Bromofluorobenzene	1.1		0.9452		112	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310E46 | RcptNo: 1

Received by/date: LM 10/31/13

Logged By: **Michelle Garcia** 10/31/2013 10:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/31/2013 10:39:09 AM Michelle Garcia

Reviewed By: 10/31/13

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	2.6	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 **72 HR.**

Project Name: **GCU #265E**

Project #:

Project Manager: **JEFF BLAGG**

Sampler: **NELSON VELEZ**

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.6

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. 1310E41	Analysis Request: BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~Motor~~)	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	2 pt. composite sample	
10/29/13	1250	SOIL	2PC - E - ESW @ 8' & 16'	4 oz. - 1	Cool	-001	✓		✓												✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/30/13	1607		Christine Walters	10/30/13	1607
10/30/13	1721	Christine Walters		10/31/13	1100

Remarks:
Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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.

Analytical Report
Lab Order **1310E45**
Date Reported: **11/1/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU #265E
Lab ID: 1310E45-001

Client Sample ID: NW-NSW @ 17' (2)
Collection Date: 10/29/2013 1:35:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/31/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/31/2013 2:25:09 PM	10124
Surr: DNOP	102	66-131		%REC	1	10/31/2013 2:25:09 PM	10124
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/31/2013 11:13:11 AM	R14496
Surr: BFB	96.3	74.5-129		%REC	1	10/31/2013 11:13:11 AM	R14496
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/31/2013 11:13:11 AM	R14496
Toluene	ND	0.050		mg/Kg	1	10/31/2013 11:13:11 AM	R14496
Ethylbenzene	ND	0.050		mg/Kg	1	10/31/2013 11:13:11 AM	R14496
Xylenes, Total	ND	0.10		mg/Kg	1	10/31/2013 11:13:11 AM	R14496
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	10/31/2013 11:13:11 AM	R14496

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E45**

01-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10124**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **10124**	RunNo: **14475**
Prep Date: **10/31/2013**	Analysis Date: **10/31/2013**	SeqNo: **416119** 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		102	66	131			

Sample ID **LCS-10124**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **10124**	RunNo: **14475**
Prep Date: **10/31/2013**	Analysis Date: **10/31/2013**	SeqNo: **416120** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.2	77.1	128			
Surr: DNOP	4.6		5.000		91.9	66	131			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E45**

01-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10112 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14496**	RunNo: **14496**
Prep Date:	Analysis Date: **10/31/2013**	SeqNo: **416357** 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		96.4	74.5	129			

Sample ID **LCS-10112 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14496**	RunNo: **14496**
Prep Date:	Analysis Date: **10/31/2013**	SeqNo: **416358** 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	99.0	74.5	126			
Surr: BFB	1100		1000		105	74.5	129			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310E45**

01-Nov-13

Client: Blagg Engineering

Project: GCU #265E

Sample ID **MB-10112 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R14496**	RunNo: **14496**
Prep Date:	Analysis Date: **10/31/2013**	SeqNo: **416386** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID **LCS-10112 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R14496**	RunNo: **14496**
Prep Date:	Analysis Date: **10/31/2013**	SeqNo: **416387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.6	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	80	120			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

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: 1310E45 | RcptNo: 1

Received by/date: LM 10/31/13

Logged By: **Michelle Garcia** 10/31/2013 10:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/31/2013 10:34:43 AM Michelle Garcia

Reviewed By: NR 10/31/13

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	2.6	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 24 HR.

Project Name:
GCU #265E

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.6

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
10/29/13	1335	SOIL	NW -NSW @ 17' (2)	4 oz. - 1	MeOH Cool	1310545-001	✓		✓											✓		

Date: 10/30/13 Time: 1607 Relinquished by: [signature]
Received by: Christine Walker Date: 10/30/13 Time: 1607

Date: 10/30/13 Time: 1721 Relinquished by: Christine Walker
Received by: [signature] Date: 10/31/13 Time: 1000

Remarks: TPH (8015B) - GRO & DRO ONLY.

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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.