OIL CONS. DIV DIST. 3

FEB 18 2016

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: BP	Contact: Steve Moskal
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497
Facility Name: Atlantic B LS 1B	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004529970

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
I	33	31N	10W	900	North	880	East	

Latitude 36.85395° **Longitude** -107.88124°

NATURE OF RELEASE

Type of Release: condensate	Volume of Release: 45 bbl	Volume Recovered: none
Source of Release: Separation of ferule connection on intercooler piping.	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: September 1, 2015 at 9:06 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? A phone call to Cory Smith	
By Whom? Steve Moskal of BP	Date and Hour: 9/1/2015 at 11:45 AM	
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.* Tech found stain on ground around condensate tank. Tank previously gauged on 8/6/2015. Tech gauged tank and found a drop of approximately 2.25' since the last gauging event. BP coordinated for the tank to be emptied via spec truck. The tank was removed from the site.

Describe Area Affected and Cleanup Action Taken.* Area immediately surrounding the tank has evidence of staining. The tank and staining is contained in an earthen containment berm. Delineation determined that the extents of the contamination reached beyond the bermed area. The contamination was excavated and transported off site for landfarm treatment. The final excavation area measured 88' x 37' x 15' deep with a total quantity of 2,070 cubic yards transported off site.

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

Signature:	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Steve Moskal		
Title: Field Environmental Coordinator	Approval Date: 02/19/2016	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: -	Attached ☐
Date: February 17, 2016 Phone: 505-326-9497		

* Attach Additional Sheets If Necessary

NCS1528742272

(66)

BP AMERICA PRODUCTION COMPANY

REMEDIATION OF 300 BARREL PRODUCTION/CONDENSATE TANK RELEASE
ATLANTIC B LS # 1B
API #: 30-045-29970
(I) Sec 33 - T31N - R10W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. September 1, 2015 (Tuesday): BP contractor observed apparent staining on the ground surface surrounding the 300 barrel production/condensate tank. Findings reported to supervising BP personnel. Immediate notification was given to the New Mexico Oil Conservation Division (**NMOCD**) via telecom. Reporting form C-141 (Initial Report) was dated and filed the same day.

2. January 5, 2016 (Tuesday): Investigation of the release was initiated to determine the vertical and lateral extent of impacts. This work was concluded the following day. Soil samples were field screened and arbitrary selected samples submitted to an accredited laboratory for testing of Total Petroleum Hydrocarbons (**TPH**) per US EPA Method 8015M, benzene, toluene, ethylbenzene, and total xylenes (**BTEX**) per US EPA Method 8021B, and chloride per US EPA Method 300.0.

3. January 11, 2016 (Monday): Remediation of impacted soils via excavation commenced. Limited excavation of 20' X 20' X 15' was completed and three (3) point composite samples were collected from the four (4) sidewalls. A 5-point composite sample was collected from the base. All 5 samples were field screened and submitted to the same laboratory for testing of TPH, BTEX, and chloride. Representatives from the Bureau of Land Management (BLM) and NMOCD were present to witness the sampling event.

4. January 14, 2016 (Monday): Upon receiving preliminary lab data from the initial excavation sampling, the excavation was extended in the east, south, and west directions. 5-point composite samples were collected from 3 sidewalls, field screened, and submitted to the same laboratory for testing of TPH and BTEX. BLM and NMOCD personnel were present to witness sampling.

5. January 19, 2016 (Tuesday): Upon receiving preliminary lab data from the subsequent sidewall sampling, the excavation was extended in the west directions another 5 feet. A 5-point composite sample was collected from the west sidewall, field screened, and submitted to the same laboratory for testing of TPH and BTEX. BLM and NMOCD personnel were present to witness the sampling event.

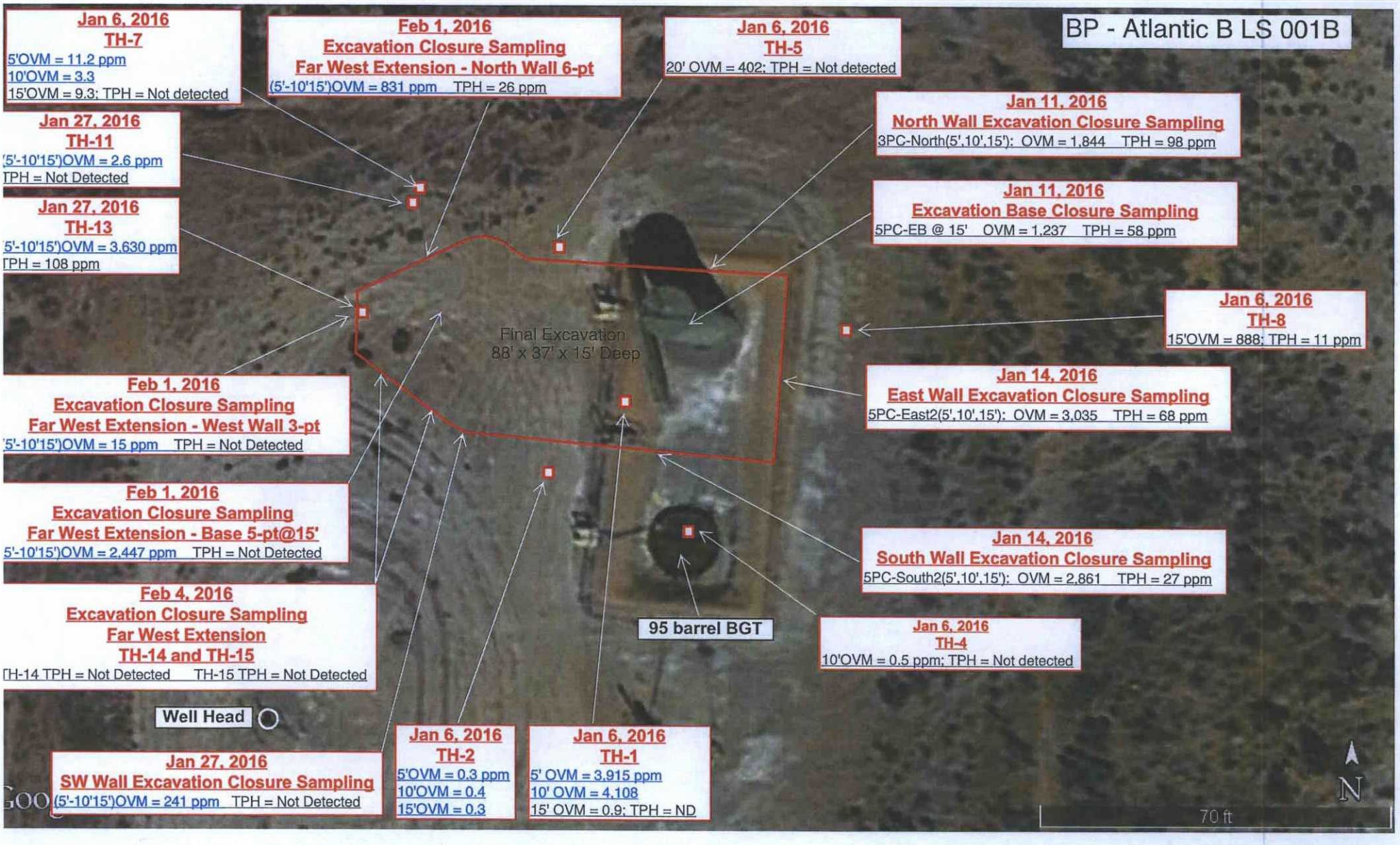
6. January 25, 2016 (Monday): Additional test holes outside the excavation limits were advanced to evaluate the extent of impacts to the west and northwest of the existing remedial excavation.

7. January 27, 2016 (Wednesday): Remedial excavation advanced further west by approximately 7 feet. Southwest sidewall sampled for final closure. Additional test holes outside the excavation limits were advanced to evaluate the extent of impacts to the west of the existing excavation. BLM and NMOCD on-site to witness sampling.

8. February 1, 2016 (Monday): Remedial excavation advanced an additional 30 feet west based on prior test hole laboratory results. Composite closure samples were collected from the north, south and west sidewalls and the base of this extended excavation for laboratory testing.

9. February 4, 2016 (Thursday): Following receipt of lab results on far west remedial excavation, extend south wall of the far west area an additional 10' south. Re-sample south wall area with 2 composite samples. Witnessed by NMOCD.

10. February 5, 2016 (Friday): Receive laboratory test results. All excavation sidewalls and base samples test below site closure standard of 100 ppm TPH. Complete backfilling operation. Final excavation approximately 88' x 37' x 15' deep. Total volume transported to JFJ Landfarm = 2,070 CY.


BP - Atlantic B LS 001B
Jan 6, 2016
TH-7
5'OVM = 11.2 ppm
10'OVM = 3.3
15'OVM = 9.3; TPH = Not detected
Feb 1, 2016
Excavation Closure Sampling
Far West Extension - North Wall 6-pt
(5'-10'15')OVM = 831 ppm TPH = 26 ppm
Jan 6, 2016
TH-5
20' OVM = 402; TPH = Not detected
Jan 11, 2016
North Wall Excavation Closure Sampling
3PC-North(5',10',15'): OVM = 1,844 TPH = 98 ppm
Jan 27, 2016
TH-11
(5'-10'15')OVM = 2.6 ppm
TPH = Not Detected
Jan 11, 2016
Excavation Base Closure Sampling
5PC-EB @ 15' OVM = 1,237 TPH = 58 ppm
Jan 27, 2016
TH-13
(5'-10'15')OVM = 3,630 ppm
TPH = 108 ppm
Jan 6, 2016
TH-8
15'OVM = 888; TPH = 11 ppm
Final Excavation
88' x 37' x 15' Deep
Feb 1, 2016
Excavation Closure Sampling
Far West Extension - West Wall 3-pt
(5'-10'15')OVM = 15 ppm TPH = Not Detected
Jan 14, 2016
East Wall Excavation Closure Sampling
5PC-East2(5',10',15'): OVM = 3,035 TPH = 68 ppm
Feb 1, 2016
Excavation Closure Sampling
Far West Extension - Base 5-pt@15'
(5'-10'15')OVM = 2,447 ppm TPH = Not Detected
Jan 14, 2016
South Wall Excavation Closure Sampling
5PC-South2(5',10',15'): OVM = 2,861 TPH = 27 ppm
Feb 4, 2016
Excavation Closure Sampling
Far West Extension
TH-14 and TH-15
TH-14 TPH = Not Detected TH-15 TPH = Not Detected
95 barrel BGT
Jan 6, 2016
TH-4
10'OVM = 0.5 ppm; TPH = Not detected
Well Head
Jan 6, 2016
TH-2
5'OVM = 0.3 ppm
10'OVM = 0.4
15'OVM = 0.3
Jan 6, 2016
TH-1
5' OVM = 3,915 ppm
10' OVM = 4,108
15' OVM = 0.9; TPH = ND
Jan 27, 2016
SW Wall Excavation Closure Sampling
(5'-10'15')OVM = 241 ppm TPH = Not Detected
N
70 ft

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 11, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX

RE: Atlantic B LS 1B OrderNo.: 1601163

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/7/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1601163-001

Client Sample ID: TH-1 @ 15'
Collection Date: 1/6/2016 9:48:00 AM
Matrix: MEOH (SOIL)
Received Date: 1/7/2016 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/7/2016 11:49:06 AM	23106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/7/2016 11:30:36 AM	23102
Surr: DNOP	133	70-130	S	%REC	1	1/7/2016 11:30:36 AM	23102
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/7/2016 11:07:56 AM	A31307
Surr: BFB	90.7	66.2-112		%REC	1	1/7/2016 11:07:56 AM	A31307
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.036		mg/Kg	1	1/7/2016 11:07:56 AM	R31307
Toluene	ND	0.036		mg/Kg	1	1/7/2016 11:07:56 AM	R31307
Ethylbenzene	ND	0.036		mg/Kg	1	1/7/2016 11:07:56 AM	R31307
Xylenes, Total	ND	0.072		mg/Kg	1	1/7/2016 11:07:56 AM	R31307
Surr: 4-Bromofluorobenzene	124	80-120	S	%REC	1	1/7/2016 11:07:56 AM	R31307

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1601163-002
Matrix: MEOH (SOIL)
Client Sample ID: TH-4 @ 10'
Collection Date: 1/6/2016 10:58:00 AM
Received Date: 1/7/2016 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/7/2016 12:26:20 PM	23106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/7/2016 11:52:46 AM	23102
Surr: DNOP	126	70-130		%REC	1	1/7/2016 11:52:46 AM	23102
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	1/7/2016 11:32:42 AM	A31307
Surr: BFB	89.3	66.2-112		%REC	1	1/7/2016 11:32:42 AM	A31307
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.042		mg/Kg	1	1/7/2016 11:32:42 AM	R31307
Toluene	ND	0.042		mg/Kg	1	1/7/2016 11:32:42 AM	R31307
Ethylbenzene	ND	0.042		mg/Kg	1	1/7/2016 11:32:42 AM	R31307
Xylenes, Total	ND	0.083		mg/Kg	1	1/7/2016 11:32:42 AM	R31307
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	1/7/2016 11:32:42 AM	R31307

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1601163-003
Matrix: MEOH (SOIL)
Client Sample ID: TH-5 @ 20'
Collection Date: 1/6/2016 11:30:00 AM
Received Date: 1/7/2016 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/7/2016 12:38:44 PM	23106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/7/2016 12:14:26 PM	23102
Surr: DNOP	134	70-130	S	%REC	1	1/7/2016 12:14:26 PM	23102
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/7/2016 12:05:39 PM	A31307
Surr: BFB	95.9	66.2-112		%REC	1	1/7/2016 12:05:39 PM	A31307
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.038		mg/Kg	1	1/7/2016 12:05:39 PM	R31307
Toluene	ND	0.038		mg/Kg	1	1/7/2016 12:05:39 PM	R31307
Ethylbenzene	ND	0.038		mg/Kg	1	1/7/2016 12:05:39 PM	R31307
Xylenes, Total	ND	0.077		mg/Kg	1	1/7/2016 12:05:39 PM	R31307
Surr: 4-Bromofluorobenzene	126	80-120	S	%REC	1	1/7/2016 12:05:39 PM	R31307

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1601163-004
Client Sample ID: TH-7 @ 15'
Collection Date: 1/6/2016 12:59:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/7/2016 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/7/2016 12:51:09 PM	23106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2016 12:36:34 PM	23102
Surr: DNOP	137	70-130	S	%REC	1	1/7/2016 12:36:34 PM	23102
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	1/7/2016 12:30:25 PM	A31307
Surr: BFB	92.4	66.2-112		%REC	1	1/7/2016 12:30:25 PM	A31307
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.043		mg/Kg	1	1/7/2016 12:30:25 PM	R31307
Toluene	ND	0.043		mg/Kg	1	1/7/2016 12:30:25 PM	R31307
Ethylbenzene	ND	0.043		mg/Kg	1	1/7/2016 12:30:25 PM	R31307
Xylenes, Total	ND	0.085		mg/Kg	1	1/7/2016 12:30:25 PM	R31307
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	1	1/7/2016 12:30:25 PM	R31307

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1601163-005

Client Sample ID: TH-8 @ 15'
Collection Date: 1/6/2016 1:22:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/7/2016 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/7/2016 1:03:33 PM	23106
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2016 12:58:39 PM	23102
Surr: DNOP	147	70-130	S	%REC	1	1/7/2016 12:58:39 PM	23102
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	11	4.9		mg/Kg	1	1/7/2016 12:55:11 PM	A31307
Surr: BFB	102	66.2-112		%REC	1	1/7/2016 12:55:11 PM	A31307
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.21	0.049		mg/Kg	1	1/7/2016 12:55:11 PM	R31307
Toluene	1.4	0.049		mg/Kg	1	1/7/2016 12:55:11 PM	R31307
Ethylbenzene	0.15	0.049		mg/Kg	1	1/7/2016 12:55:11 PM	R31307
Xylenes, Total	1.8	0.098		mg/Kg	1	1/7/2016 12:55:11 PM	R31307
Surr: 4-Bromofluorobenzene	135	80-120	S	%REC	1	1/7/2016 12:55:11 PM	R31307

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601163**

11-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID	**MB-23106**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **23106**			RunNo: **31326**					
Prep Date:	**1/7/2016**	Analysis Date: **1/7/2016**			SeqNo: **959120**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-23106**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **23106**			RunNo: **31326**					
Prep Date:	**1/7/2016**	Analysis Date: **1/7/2016**			SeqNo: **959121**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601163**

11-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **MB-23102**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23102**	RunNo: **31293**
Prep Date: **1/7/2016**	Analysis Date: **1/7/2016**	SeqNo: **958006** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		79.7	70	130			

Sample ID **MB-23116**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23116**	RunNo: **31303**
Prep Date: **1/7/2016**	Analysis Date: **1/7/2016**	SeqNo: **958503** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	14		10.00		137	70	130			S

Sample ID **LCS-23102**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23102**	RunNo: **31293**
Prep Date: **1/7/2016**	Analysis Date: **1/7/2016**	SeqNo: **958703** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.0	65.8	136			
Surr: DNOP	4.2		5.000		83.8	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601163**

11-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **A31307**	RunNo: **31307**
Prep Date:	Analysis Date: **1/7/2016**	SeqNo: **958472** 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	890		1000		88.5	66.2	112			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A31307**	RunNo: **31307**
Prep Date:	Analysis Date: **1/7/2016**	SeqNo: **958473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.8	79.6	122			
Surr: BFB	990		1000		99.0	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601163**

11-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R31307**	RunNo: **31307**
Prep Date:	Analysis Date: **1/7/2016**	SeqNo: **958479** 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		119	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R31307**	RunNo: **31307**
Prep Date:	Analysis Date: **1/7/2016**	SeqNo: **958480** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	91.9	80	120			
Toluene	0.94	0.050	1.000	0	94.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		129	80	120			S

Qualifiers:

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

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: 1601163 | RcptNo: 1

Received by/date: 01/07/16

Logged By: Lindsay Mangin 1/7/2016 8:15:00 AM

Completed By: Lindsay Mangin 1/7/2016 8:41:37 AM

Reviewed By: 01/07/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (If applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: BP America	Turn-Around Time: ~~Next 2 Day~~ (Friday 1/8) CW
Blagg Engineering	☐ Standard ☒ Rush
Mailing Address:	Project Name: Atlantic B LS 1B
	Project #:
Phone #: 505-320-1183	
email or Fax#:	Project Manager: J. Blagg
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: J. Blagg
Accreditation ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 1.8

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1601163	BTEX + ~~MTBE~~ + TMBs (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)
1/5/2016	0948	SOIL	TH-1 @ 15'	4 oz x 1	COOL	-001	X		X									X				
"	1058	"	TH-4 @ 10'	"	"	-002	X		X									X				
"	1130	"	TH-5 @ 20'	"	"	-003	X		X									X				
"	1259	"	TH-7 @ 15'	"	"	-004	X		X									X				
"	1322	"	TH-8 @ 15'	"	"	-005	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/5/2016	1437	Jeff Blagg	Christine Walters	1/6/2016	1437
1/6/16	1847	Christine Walters		01/07/16	0815

Remarks: Bill BP
WORKORDER: N 15639899
CODE: GL 745165
Contact: STEVE MOSKAL

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 14, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: Atlantic B LS #1B OrderNo.: 1601307

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/12/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS #1B
Lab ID: 1601307-001 **Matrix:** SOIL

Client Sample ID: 3 PC North (5',10',15')
Collection Date: 1/11/2016 1:24:00 PM
Received Date: 1/12/2016 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/12/2016 11:53:07 AM	23166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	27	9.3		mg/Kg	1	1/12/2016 9:51:04 AM	23163
Surr: DNOP	83.5	70-130		%REC	1	1/12/2016 9:51:04 AM	23163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	71	49		mg/Kg	10	1/12/2016 9:11:50 AM	R31381
Surr: BFB	105	66.2-112		%REC	10	1/12/2016 9:11:50 AM	R31381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	0.094	0.049		mg/Kg	2	1/12/2016 10:42:38 AM	23148
Toluene	1.4	0.097		mg/Kg	2	1/12/2016 10:42:38 AM	23148
Ethylbenzene	0.46	0.097		mg/Kg	2	1/12/2016 10:42:38 AM	23148
Xylenes, Total	5.8	0.19		mg/Kg	2	1/12/2016 10:42:38 AM	23148
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	2	1/12/2016 10:42:38 AM	23148
Surr: 4-Bromofluorobenzene	102	70-130		%REC	2	1/12/2016 10:42:38 AM	23148
Surr: Dibromofluoromethane	103	70-130		%REC	2	1/12/2016 10:42:38 AM	23148
Surr: Toluene-d8	104	70-130		%REC	2	1/12/2016 10:42:38 AM	23148

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS #1B
Lab ID: 1601307-005 **Matrix:** SOIL

Client Sample ID: 5 PC-EB @ 15'
Collection Date: 1/11/2016 1:12:00 PM
Received Date: 1/12/2016 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/12/2016 12:42:45 PM	23166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	13	9.3		mg/Kg	1	1/12/2016 11:43:30 AM	23163
Surr: DNOP	85.4	70-130		%REC	1	1/12/2016 11:43:30 AM	23163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	45	8.0		mg/Kg	2	1/12/2016 1:30:44 PM	R31381
Surr: BFB	162	66.2-112	S	%REC	2	1/12/2016 1:30:44 PM	R31381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	0.069	0.040		mg/Kg	2	1/12/2016 12:35:46 PM	23148
Toluene	0.67	0.080		mg/Kg	2	1/12/2016 12:35:46 PM	23148
Ethylbenzene	0.20	0.080		mg/Kg	2	1/12/2016 12:35:46 PM	23148
Xylenes, Total	3.0	0.16		mg/Kg	2	1/12/2016 12:35:46 PM	23148
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	2	1/12/2016 12:35:46 PM	23148
Surr: 4-Bromofluorobenzene	100	70-130		%REC	2	1/12/2016 12:35:46 PM	23148
Surr: Dibromofluoromethane	102	70-130		%REC	2	1/12/2016 12:35:46 PM	23148
Surr: Toluene-d8	103	70-130		%REC	2	1/12/2016 12:35:46 PM	23148

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601307**

14-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS #1B

Sample ID	**MB-23166**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **23166**			RunNo: **31394**					
Prep Date:	**1/12/2016**	Analysis Date: **1/12/2016**			SeqNo: **960997**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-23166**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **23166**			RunNo: **31394**					
Prep Date:	**1/12/2016**	Analysis Date: **1/12/2016**			SeqNo: **960998**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601307**

14-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS #1B

Sample ID **MB-23163**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23163**	RunNo: **31375**
Prep Date: **1/12/2016**	Analysis Date: **1/12/2016**	SeqNo: **960454** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.7	70	130			

Sample ID **LCS-23163**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23163**	RunNo: **31375**
Prep Date: **1/12/2016**	Analysis Date: **1/12/2016**	SeqNo: **960455** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	65.8	136			
Surr: DNOP	4.1		5.000		82.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601307**

14-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS #1B

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R31381**	RunNo: **31381**
Prep Date:	Analysis Date: **1/12/2016**	SeqNo: **960802** 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		90.5	66.2	112			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R31381**	RunNo: **31381**
Prep Date:	Analysis Date: **1/12/2016**	SeqNo: **960803** 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	99.9	79.6	122			
Surr: BFB	960		1000		96.2	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601307**

14-Jan-16

Client: Blagg Engineering
Project: Atlantic B LS #1B

Sample ID **mb-23148**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **23148**	RunNo: **31385**
Prep Date: **1/11/2016**	Analysis Date: **1/12/2016**	SeqNo: **960917** 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: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **lcs-23148**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **23148**	RunNo: **31385**
Prep Date: **1/11/2016**	Analysis Date: **1/12/2016**	SeqNo: **960918** 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	104	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Qualifiers:

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

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: 1601307 | RcptNo: 1

Received by/date: AT 01/12/16

Logged By: Anne Thorne 1/12/2016 7:10:00 AM Anne Thorne

Completed By: Anne Thorne 1/12/2016 Anne Thorne

Reviewed By: JO 01/12/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

Email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush SAME DAY

Project Name:
ATLANTIC B LS # 1B

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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 # (4oz Methkits)	Preservative Type	HEAL No. 1600307	BTEX + MTBE + TPH (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	# pt. composite sample	Air Bubbles (Y or N)
1/11/16	1324	SOIL	① SPC-NORTH (5',10',15')	4oz.-1	Cool	-001	✓		✓									✓			3 pt.	
1/11/16	1333	SOIL	② SPC-EAST (5',10',15')	4oz.-1	Cool	-002	✓		✓									✓			3	
1/11/16	1330	SOIL	③ SPC-SOUTH (5',10',15')	4oz.-1	Cool	-003	✓		✓									✓			3	
1/11/16	1312	SOIL	④ SPC-WEST (5',10',15')	4oz.-1	Cool	-004	✓		✓									✓			3	
1/11/16	1320	SOIL	⑤ SPC-EB @15'	4oz.-1	Cool	-005	✓		✓									✓			5	

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/11/16	1501		Christine Walters	1/11/16	1501
1/11/16	1854	Christine Walters		01/12/16	0710

Remarks:

BILL DIRECTLY TO BP:
Steve Moskal, 200 Energy Court, Farmington, NM 87401

Work Order #: N15639899 Code: GL745165

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 18, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: ATLANTIC B LS #1B OrderNo.: 1601508

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/15/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ATLANTIC B LS #1B
Lab ID: 1601508-001 **Matrix:** SOIL

Client Sample ID: 5PC-East 2 (5', 10', 15')
Collection Date: 1/14/2016 11:38:00 AM
Received Date: 1/15/2016 7:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	15	9.3		mg/Kg	1	1/15/2016 10:06:30 AM	23231
Surr: DNOP	88.5	70-130		%REC	1	1/15/2016 10:06:30 AM	23231
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	53	16		mg/Kg	4	1/15/2016 10:01:26 AM	A31465
Surr: BFB	150	66.2-112	S	%REC	4	1/15/2016 10:01:26 AM	A31465
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.092	0.079		mg/Kg	4	1/15/2016 10:01:26 AM	C31465
Toluene	0.85	0.16		mg/Kg	4	1/15/2016 10:01:26 AM	C31465
Ethylbenzene	0.40	0.16		mg/Kg	4	1/15/2016 10:01:26 AM	C31465
Xylenes, Total	4.7	0.31		mg/Kg	4	1/15/2016 10:01:26 AM	C31465
Surr: 4-Bromofluorobenzene	151	80-120	S	%REC	4	1/15/2016 10:01:26 AM	C31465

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ATLANTIC B LS #1B
Lab ID: 1601508-002 **Matrix:** SOIL

Client Sample ID: 5PC-South 2 (5', 10', 15')
Collection Date: 1/14/2016 11:30:00 AM
Received Date: 1/15/2016 7:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	10	9.5		mg/Kg	1	1/15/2016 10:28:11 AM	23231
Surr: DNOP	90.9	70-130		%REC	1	1/15/2016 10:28:11 AM	23231
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	17	3.7		mg/Kg	1	1/15/2016 10:26:04 AM	A31465
Surr: BFB	178	66.2-112	S	%REC	1	1/15/2016 10:26:04 AM	A31465
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.031	0.018		mg/Kg	1	1/15/2016 10:26:04 AM	C31465
Toluene	0.28	0.037		mg/Kg	1	1/15/2016 10:26:04 AM	C31465
Ethylbenzene	0.12	0.037		mg/Kg	1	1/15/2016 10:26:04 AM	C31465
Xylenes, Total	1.6	0.074		mg/Kg	1	1/15/2016 10:26:04 AM	C31465
Surr: 4-Bromofluorobenzene	151	80-120	S	%REC	1	1/15/2016 10:26:04 AM	C31465

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601508**

18-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS #1B

Sample ID **MB-23231**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23231**	RunNo: **31458**
Prep Date: **1/15/2016**	Analysis Date: **1/15/2016**	SeqNo: **962895** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.8		10.00		87.9	70	130			

Sample ID **LCS-23231**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23231**	RunNo: **31458**
Prep Date: **1/15/2016**	Analysis Date: **1/15/2016**	SeqNo: **962896** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.6	65.8	136			
Surr: DNOP	4.6		5.000		92.8	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601508**

18-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS #1B

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **A31465**	RunNo: **31465**
Prep Date:	Analysis Date: **1/15/2016**	SeqNo: **963391** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.3	66.2	112			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A31465**	RunNo: **31465**
Prep Date:	Analysis Date: **1/15/2016**	SeqNo: **963392** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.6	79.6	122			
Surr: BFB	1100		1000		106	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601508**

18-Jan-16

Client: Blagg Engineering

Project: ATLANTIC B LS #1B

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **C31465**	RunNo: **31465**
Prep Date:	Analysis Date: **1/15/2016**	SeqNo: **963415** 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		122	80	120			S

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **C31465**	RunNo: **31465**
Prep Date:	Analysis Date: **1/15/2016**	SeqNo: **963416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	92.8	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.5	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.4		1.000		137	80	120			S

Qualifiers:

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

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: 1601508 | RcptNo: 1

Received by/date: AT 01/15/16

Logged By: Anne Thorne 1/15/2016 7:56:00 AM Anne Thorne

Completed By: Anne Thorne 1/15/2016 Anne Thorne

Reviewed By: 01/15/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

Email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush SAME DAY

Project Name:
ATLANTIC B LS # 1B

Project #:

Project Manager:
JEFF BLAGG

Sampler: NELSON VELEZ NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.2

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~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	# pt. composite sample	Air Bubbles (Y or N)
1/14/16	1138	SOIL	5PC - East2 (5', 10', 15') NV	4 oz. - 1	Cool	-001	✓		✓												3	5 NV
1/14/16	1130	SOIL	5PC - South2 (5', 10', 15') NV	4 oz. - 1	Cool	-002	✓		✓												3	5 NV
1/14/16	1142	SOIL	5PC - West2 (5', 10', 15') NV	4 oz. - 1	Cool	-003	✓		✓												3	5 NV

Date: 1/14/16 Time: 1350 Relinquished by: [signature]
Received by: [signature] Date Time: 1/14/16 1350

Date: 1/14/16 Time: 1757 Relinquished by: Christine Walters
Received by: [signature] Date Time: 01/15/16 754

Remarks: Please forward preliminary results to BP & Blagg Engr.

BILL DIRECTLY TO BP:
Steve Moskal, 200 Energy Court, Farmington, NM 87401

Work Order #: N15639899 Code: GL745165

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 29, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: ATLANTIC B LS 1B OrderNo.: 1601A36

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/28/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1601A36**
Date Reported: **1/29/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ATLANTIC B LS 1B
Lab ID: 1601A36-001 **Matrix:** SOIL

Client Sample ID: TH-11 (5'-10'-15')
Collection Date: 1/27/2016 2:04:00 PM
Received Date: 1/28/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2016 9:50:10 AM	23447
Surr: DNOP	96.5	70-130		%REC	1	1/28/2016 9:50:10 AM	23447
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/28/2016 10:27:37 AM	23437
Surr: BFB	94.0	66.2-112		%REC	1	1/28/2016 10:27:37 AM	23437
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.034		mg/Kg	1	1/28/2016 10:27:37 AM	23437
Toluene	ND	0.034		mg/Kg	1	1/28/2016 10:27:37 AM	23437
Ethylbenzene	ND	0.034		mg/Kg	1	1/28/2016 10:27:37 AM	23437
Xylenes, Total	ND	0.069		mg/Kg	1	1/28/2016 10:27:37 AM	23437
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/28/2016 10:27:37 AM	23437

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ATLANTIC B LS 1B
Lab ID: 1601A36-003 **Matrix:** SOIL

Client Sample ID: SW Wall (5'-10'-15')
Collection Date: 1/27/2016 2:47:00 PM
Received Date: 1/28/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2016 10:36:00 AM	23447
Surr: DNOP	97.7	70-130		%REC	1	1/28/2016 10:36:00 AM	23447
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	1/28/2016 11:14:45 AM	23437
Surr: BFB	100	66.2-112		%REC	1	1/28/2016 11:14:45 AM	23437
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.044		mg/Kg	1	1/28/2016 11:14:45 AM	23437
Toluene	0.045	0.044		mg/Kg	1	1/28/2016 11:14:45 AM	23437
Ethylbenzene	ND	0.044		mg/Kg	1	1/28/2016 11:14:45 AM	23437
Xylenes, Total	0.11	0.088		mg/Kg	1	1/28/2016 11:14:45 AM	23437
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	1/28/2016 11:14:45 AM	23437

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A36**

29-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS 1B

Sample ID **MB-23447**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23447**	RunNo: **31735**
Prep Date: **1/28/2016**	Analysis Date: **1/28/2016**	SeqNo: **971228** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.8	70	130			

Sample ID **LCS-23447**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23447**	RunNo: **31735**
Prep Date: **1/28/2016**	Analysis Date: **1/28/2016**	SeqNo: **971229** 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	85.7	65.8	136			
Surr: DNOP	4.4		5.000		88.7	70	130			

Sample ID **MB-23439**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23439**	RunNo: **31735**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971590** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	70	130			

Sample ID **LCS-23439**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23439**	RunNo: **31735**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971591** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A36**

29-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS 1B

Sample ID **MB-23437**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971845** 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		92.7	66.2	112			

Sample ID **LCS-23437**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.5	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A36**

29-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS 1B

Sample ID **MB-23437**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971860** 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		112	80	120			

Sample ID **LCS-23437**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971861** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.050	1.000	0	87.7	80	120			
Toluene	0.89	0.050	1.000	0	88.7	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Qualifiers:

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

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: 1601A36 RcptNo: 1

Received by/date: AT 01/28/16

Logged By: Anne Thorne 1/28/2016 8:00:00 AM Anne Thorne

Completed By: Anne Thorne 1/28/2016 Anne Thorne

Reviewed By: TO 01/28/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
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

ient: BP AMERICA

BLAGG ENGINEERING

ailing Address:

hone #: (505) 320-1183

mail or Fax#:

VQC Package:

Standard ☐ Level 4 (Full Validation)

ccreditation

NELAP ☐ Other

EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush ASAP SAME DAY

Project Name: ATLANTIC B LS 1B

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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 # (AT 01/23/16 MeoH Kd)	Preservative Type	HEAL No 1601436	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO ~~/ MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
1/15	1404	SOIL	TH-11 (5'-10'-15')	4oz x1	COOL	001	X		X												
"	1431	"	TH-12 (5'-10'-15')	"	"	002	X		X												
"	1447	"	@SW Wall (5'-10'-15')	"	"	003	X		X												

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/16	1554	Jeff Blagg	Christie Walters	1/27/16	1584
1/27/16	1824	Christie Walters		01/28/16	0800

Remarks: BILL BP
WORKORDER: N15639899
CODE: GL745165
CONTACT: STEVE MOSKAL

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 29, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: ATLANTIC B LS 1B OrderNo.: 1601A37

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/28/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: ATLANTIC B LS 1B
Lab ID: 1601A37-001 **Matrix:** SOIL

Client Sample ID: TH-13 (5'-10'-15')
Collection Date: 1/27/2016 3:02:00 PM
Received Date: 1/28/2016 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	21	9.8		mg/Kg	1	1/28/2016 10:57:37 AM	23447
Surr: DNOP	97.6	70-130		%REC	1	1/28/2016 10:57:37 AM	23447
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	87	21		mg/Kg	5	1/28/2016 11:38:22 AM	23437
Surr: BFB	130	66.2-112	S	%REC	5	1/28/2016 11:38:22 AM	23437
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.11	0.11		mg/Kg	5	1/28/2016 11:38:22 AM	23437
Toluene	1.8	0.21		mg/Kg	5	1/28/2016 11:38:22 AM	23437
Ethylbenzene	0.60	0.21		mg/Kg	5	1/28/2016 11:38:22 AM	23437
Xylenes, Total	6.7	0.42		mg/Kg	5	1/28/2016 11:38:22 AM	23437
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	5	1/28/2016 11:38:22 AM	23437

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A37**

29-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS 1B

Sample ID **MB-23447**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23447**	RunNo: **31735**
Prep Date: **1/28/2016**	Analysis Date: **1/28/2016**	SeqNo: **971228** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.8	70	130			

Sample ID **LCS-23447**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23447**	RunNo: **31735**
Prep Date: **1/28/2016**	Analysis Date: **1/28/2016**	SeqNo: **971229** 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	85.7	65.8	136			
Surr: DNOP	4.4		5.000		88.7	70	130			

Sample ID **MB-23439**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23439**	RunNo: **31735**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971590** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	70	130			

Sample ID **LCS-23439**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23439**	RunNo: **31735**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971591** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A37**

29-Jan-16

Client: Blagg Engineering
Project: ATLANTIC B LS 1B

Sample ID **MB-23437**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971845** 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		92.7	66.2	112			

Sample ID **LCS-23437**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.5	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601A37**

29-Jan-16

Client: Blagg Engineering

Project: ATLANTIC B LS 1B

Sample ID **MB-23437**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971860** 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		112	80	120			

Sample ID **LCS-23437**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **23437**	RunNo: **31744**
Prep Date: **1/27/2016**	Analysis Date: **1/28/2016**	SeqNo: **971861** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.050	1.000	0	87.7	80	120			
Toluene	0.89	0.050	1.000	0	88.7	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Qualifiers:

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

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: 1601A37 RcptNo: 1

Received by/date: AT 01/28/16

Logged By: Anne Thorne 1/28/2016 8:00:00 AM Anne Thorne

Completed By: Anne Thorne 1/28/2016 Anne Thorne

Reviewed By: JD 01/28/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
11. Were any sample containers received broken? Yes ☐ No ☑
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: BP America

Blagg Engineering

Mailing Address:

Phone #: 505-320-1183

Email or Fax#:

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

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☐ Standard ☒ Rush ASAP same Day

Project Name: Atlantic B LS 1B

Project #:

Project Manager: J. Blagg

Sampler: J. Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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 # (AT 01/28/16, MeoHKot)	Preservative Type	HEAL No. 1120137	BTEX + MTBE + TMBS (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
1/27/16	1502	Soil	TH-13(5'-10'-15')	4oz-1	Cool	001	X		X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/16	1554	Jeff Blagg			
1/27/16	1824	Christine Walls		1/27/16	1554
				01/28/16	0800

Remarks: Bill BP

Steve Moskal

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 03, 2016

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

RE: Atlantic B LS 1B OrderNo.: 1602032

Dear Jeff Blagg:

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

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1602032**
Date Reported: **2/3/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1602032-001 **Matrix:** SOIL

Client Sample ID: Far W Ext W Wall 3-point
Collection Date: 2/1/2016 11:06:00 AM
Received Date: 2/2/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/2/2016 11:12:35 AM	23521
Surr: DNOP	84.2	70-130		%Rec	1	2/2/2016 11:12:35 AM	23521
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/2/2016 10:33:30 AM	23504
Surr: BFB	91.0	66.2-112		%Rec	1	2/2/2016 10:33:30 AM	23504
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.041		mg/Kg	1	2/2/2016 10:33:30 AM	23504
Toluene	ND	0.041		mg/Kg	1	2/2/2016 10:33:30 AM	23504
Ethylbenzene	ND	0.041		mg/Kg	1	2/2/2016 10:33:30 AM	23504
Xylenes, Total	ND	0.082		mg/Kg	1	2/2/2016 10:33:30 AM	23504
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	2/2/2016 10:33:30 AM	23504

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1602032-003 **Matrix:** SOIL

Client Sample ID: Far W Ext N Wall 6-point
Collection Date: 2/1/2016 11:24:00 AM
Received Date: 2/2/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	13	10		mg/Kg	1	2/2/2016 12:08:14 PM	23521
Surr: DNOP	85.4	70-130		%Rec	1	2/2/2016 12:08:14 PM	23521
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	13	4.8		mg/Kg	1	2/2/2016 11:20:38 AM	23504
Surr: BFB	135	66.2-112	S	%Rec	1	2/2/2016 11:20:38 AM	23504
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	2/2/2016 11:20:38 AM	23504
Toluene	0.15	0.048		mg/Kg	1	2/2/2016 11:20:38 AM	23504
Ethylbenzene	0.062	0.048		mg/Kg	1	2/2/2016 11:20:38 AM	23504
Xylenes, Total	0.71	0.095		mg/Kg	1	2/2/2016 11:20:38 AM	23504
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/2/2016 11:20:38 AM	23504

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1602032-004 **Matrix:** SOIL

Client Sample ID: Far W Ext Base 5-point @ 15'
Collection Date: 2/1/2016 11:30:00 AM
Received Date: 2/2/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/2/2016 12:36:08 PM	23521
Surr: DNOP	87.0	70-130		%Rec	1	2/2/2016 12:36:08 PM	23521
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/2/2016 11:44:13 AM	23504
Surr: BFB	101	66.2-112		%Rec	1	2/2/2016 11:44:13 AM	23504
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.039		mg/Kg	1	2/2/2016 11:44:13 AM	23504
Toluene	0.092	0.039		mg/Kg	1	2/2/2016 11:44:13 AM	23504
Ethylbenzene	ND	0.039		mg/Kg	1	2/2/2016 11:44:13 AM	23504
Xylenes, Total	0.15	0.077		mg/Kg	1	2/2/2016 11:44:13 AM	23504
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/2/2016 11:44:13 AM	23504

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602032**

03-Feb-16

Client: Blagg Engineering

Project: Atlantic B LS 1B

Sample ID **MB-23521**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23521**	RunNo: **31849**
Prep Date: **2/2/2016**	Analysis Date: **2/2/2016**	SeqNo: **974594** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.1		10.00		80.7	70	130			

Sample ID **LCS-23521**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23521**	RunNo: **31849**
Prep Date: **2/2/2016**	Analysis Date: **2/2/2016**	SeqNo: **974596** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.4	65.8	136			
Surr: DNOP	4.0		5.000		79.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602032**

03-Feb-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **MB-23504**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **23504**	RunNo: **31851**
Prep Date: **2/1/2016**	Analysis Date: **2/2/2016**	SeqNo: **974988** 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		93.2	66.2	112			

Sample ID **LCS-23504**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **23504**	RunNo: **31851**
Prep Date: **2/1/2016**	Analysis Date: **2/2/2016**	SeqNo: **974989** 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	101	79.6	122			
Surr: BFB	980		1000		98.0	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602032**

03-Feb-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **MB-23504**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **23504**	RunNo: **31851**
Prep Date: **2/1/2016**	Analysis Date: **2/2/2016**	SeqNo: **975028** 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		113	80	120			

Sample ID **LCS-23504**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **23504**	RunNo: **31851**
Prep Date: **2/1/2016**	Analysis Date: **2/2/2016**	SeqNo: **975029** 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	103	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1602032 RcptNo: 1

Received by/date: AT 02/02/16

Logged By: Anne Thorne 2/2/2016 7:10:00 AM Anne Thorne

Completed By: Anne Thorne 2/2/2016 Anne Thorne

Reviewed By: TO 02/02/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

ent: BP AMERICA

BLAGG ENGINEERING

illing Address:

one #: (505) 320-1183

ail or Fax#:

/QC Package:

Standard ☐ Level 4 (Full Validation)

creditation

NELAP ☐ Other

EDD (Type)

Turn-Around Time: ASAP

☐ Standard ☒ Rush SAME DAY

Project Name: ATLANTIC B LS 1B

Project #:

Project Manager: J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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. 1602032	BTEX + ~~MBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
2016	1106	SOIL	FAR WEST Extension West Wall 3-point	4 oz x1	COOL	001	X		X													
"	1117	"	FAR West Extension South Wall 6-point	"	"	002	X		X													
"	1124	"	FAR West Extension NORTH Wall 6-point	"	"	003	X		X													
"	1130	"	FAR West Extension BASE 5-point @ 15'	"	"	004	X		X													

Date	Time	Relinquished by:	Received by:	Date	Time
2016	1232	Jeff Blagg		7/1/2016	1232
1/16	1814			02/02/16	0710

Remarks: BILL BP
WORKORDER: N 15639899
CODE: GL745165
contact: Steve Moskal

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 08, 2016

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

RE: Atlantic B LS 1B OrderNo.: 1602192

Dear Jeff Blagg:

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

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1602192-001 **Matrix:** MEOH (SOIL)

Client Sample ID: TH-14 (5'-10'-15') 3 Pt
Collection Date: 2/4/2016 11:16:00 AM
Received Date: 2/5/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/5/2016 10:44:21 AM	23594
Surr: DNOP	96.4	70-130		%Rec	1	2/5/2016 10:44:21 AM	23594
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.6		mg/Kg	1	2/5/2016 12:28:10 PM	R31954
Surr: BFB	93.8	66.2-112		%Rec	1	2/5/2016 12:28:10 PM	R31954
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.056		mg/Kg	1	2/5/2016 12:28:10 PM	A31954
Toluene	ND	0.056		mg/Kg	1	2/5/2016 12:28:10 PM	A31954
Ethylbenzene	ND	0.056		mg/Kg	1	2/5/2016 12:28:10 PM	A31954
Xylenes, Total	ND	0.11		mg/Kg	1	2/5/2016 12:28:10 PM	A31954
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	2/5/2016 12:28:10 PM	A31954

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Atlantic B LS 1B
Lab ID: 1602192-002
Matrix: MEOH (SOIL)
Client Sample ID: TH-15 (5'-10'-15') 3 Pt
Collection Date: 2/4/2016 11:26:00 AM
Received Date: 2/5/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/5/2016 11:05:43 AM	23594
Surr: DNOP	97.9	70-130		%Rec	1	2/5/2016 11:05:43 AM	23594
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/5/2016 12:51:39 PM	R31954
Surr: BFB	92.8	66.2-112		%Rec	1	2/5/2016 12:51:39 PM	R31954
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.046		mg/Kg	1	2/5/2016 12:51:39 PM	A31954
Toluene	ND	0.046		mg/Kg	1	2/5/2016 12:51:39 PM	A31954
Ethylbenzene	ND	0.046		mg/Kg	1	2/5/2016 12:51:39 PM	A31954
Xylenes, Total	ND	0.092		mg/Kg	1	2/5/2016 12:51:39 PM	A31954
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	2/5/2016 12:51:39 PM	A31954

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602192**

08-Feb-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **MB-23594**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **23594**	RunNo: **31943**
Prep Date: **2/5/2016**	Analysis Date: **2/5/2016**	SeqNo: **977063** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		94.4	70	130			

Sample ID **LCS-23594**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **23594**	RunNo: **31943**
Prep Date: **2/5/2016**	Analysis Date: **2/5/2016**	SeqNo: **977064** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.6	65.8	136			
Surr: DNOP	4.6		5.000		92.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602192**

08-Feb-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **2.5UG GRO LCS**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **R31954**			RunNo: **31954**					
Prep Date:	Analysis Date: **2/5/2016**			SeqNo: **977487**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.2	79.6	122			
Surr: BFB	1000		1000		101	66.2	112			

Sample ID **5ML RB**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **R31954**			RunNo: **31954**					
Prep Date:	Analysis Date: **2/5/2016**			SeqNo: **977488**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.9	66.2	112			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602192**

08-Feb-16

Client: Blagg Engineering
Project: Atlantic B LS 1B

Sample ID **1602192-001A MS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TH-14 (5'-10'-15') 3 P** Batch ID: **A31954** RunNo: **31954**
Prep Date: Analysis Date: **2/5/2016** SeqNo: **977493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.48	0.056	1.116	0	43.0	71.5	122			S
Toluene	0.49	0.056	1.116	0	43.8	71.2	123			S
Ethylbenzene	0.48	0.056	1.116	0	42.7	75.2	130			S
Xylenes, Total	1.5	0.11	3.348	0	43.4	72.4	131			S
Surr: 4-Bromofluorobenzene	1.3		1.116		120	80	120			S

Sample ID **1602192-001A MSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TH-14 (5'-10'-15') 3 P** Batch ID: **A31954** RunNo: **31954**
Prep Date: Analysis Date: **2/5/2016** SeqNo: **977494** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.056	1.116	0	85.0	71.5	122	65.7	20	R
Toluene	1.0	0.056	1.116	0	91.5	71.2	123	70.5	20	R
Ethylbenzene	1.0	0.056	1.116	0	91.4	75.2	130	72.6	20	R
Xylenes, Total	3.1	0.11	3.348	0	94.0	72.4	131	73.6	20	R
Surr: 4-Bromofluorobenzene	1.4		1.116		124	80	120	0	0	S

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **A31954** RunNo: **31954**
Prep Date: Analysis Date: **2/5/2016** SeqNo: **977496** 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	99.4	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **A31954** RunNo: **31954**
Prep Date: Analysis Date: **2/5/2016** SeqNo: **977497** 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		108	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1602192 RcptNo: 1

Received by/date: 02/05/16

Logged By: **Ashley Gallegos** 2/5/2016 8:05:00 AM

Completed By: **Ashley Gallegos** 2/5/2016 8:45:26 AM

Reviewed By: 02/05/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Chain-of-Custody Record

ient: BP AMERICA

BLAGG ENGINEERING

ailing Address:

hone #: 505-320-4183

nail or Fax#:

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

ccreditation
NELAP ☐ Other _____

EDD (Type) _____

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

Project Name:
ATLANTIC B LS 1B

Project #:

Project Manager:
J. BLAGG

Sampler: J. BLAGG

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1

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. 1602192	BTEX + ~~MTBE +~~ TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
4/16	1116	SOIL	TH-14 (5'-10'-15') 3-point	4 oz x 1	COOL	-001	X		X													
4	1126	"	TH-15 (5'-10'-15') 3-point	"	"	-002	X		X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/2016	1234	Jeff Blagg	Tamara Walters	3/4/2016	1234
4/16	1840	Tamara Walters		02/05/16	0805

Remarks: BILL BP
WORKORDER: N15639899
CODE: GL74565

CONTACT: STEVE MOSKAL

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
220 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-138
Revised August 1, 2011

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

1/29/16 - 140cy
1/28/16 - 170cy
1/27/16 - 110cy
1/21/16 - 110cy
1/19/16 - 110cy
1/18/16 - 150cy
1/15/16 - 270cy
1/14/16 - 240cy
1/13/16 - 240cy
2/4/16 - 50cy
2/3/16 - 150cy
2/2/16 - 110cy

2. **Originating Site:**
Atlantic B LS 001B
Paykey: VHIXONEVRM

3. **Location of Material (Street Address, City, State or ULSTR):**
QRT/QRT: NE/SE Unit: I Section: 33 T31N R10W

4. **Source and Description of Waste:** sediment/sludge from tank clean-out on location

Estimated Volume 15 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 220 yd³ / bbls

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

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

Steve Moskal, representative for BP America Production Company authorize Envirotech to collect samples and perform the required testing/sign the Generator Waste Testing Certification.

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

5. **Transporter:**
Crossfire

OCD Permitted Surface Waste Management Facility

pH = 7
Cl = 4132

Name and Facility Permit #: Industrial Ecosystems Inc., JFJ Waste Management Facility (JFJ), Permit NM-01-0010B

Address of Facility: #49 CR 3150 Aztec, NM

Method of Treatment and/or Disposal:

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

Waste Acceptance Status:

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

PRINT NAME: K. Solph TITLE: Clerk DATE: 1/2/16

SIGNATURE: K. Solph TELEPHONE NO.: 632-1782

Surface Waste Management Facility Authorized Agent

1/4/16