

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 003C	Facility Type: Natural gas well	
Surface Owner: Federal	Mineral Owner: Federal	API No. 3004532178

LOCATION OF RELEASE

Unit Letter O	Section 04	Township 30N	Range 10W	Feet from the 720	North/South Line South	Feet from the 2,445	East/West Line East	County: San Juan
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Latitude 36.835208° Longitude -107.887504°

NATURE OF RELEASE

Type of Release: Hydrocarbon	Volume of Release: unknown	Volume Recovered: N/A
Source of Release: Former workover pit	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 6/28/17 OIL CONS. DIV DIST. 3
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	AUG 09 2017
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* During final reclamation of the plugged and abandoned production well site, a lined pit was encountered with a bulldozer. The contents of the pit were excavated and transported offsite for landfarm treatment.		
Describe Area Affected and Cleanup Action Taken.* The final excavation extents measured approximately 105'x38'x8' in depth. The impacted soil and liner were removed from the location. The excavation was sampled for closure with all results below the spill and release guidelines. No further action is required. Attached is a field report with laboratory results.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: 8/10/2017	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: August 7, 2017	Phone: 505-326-9497	

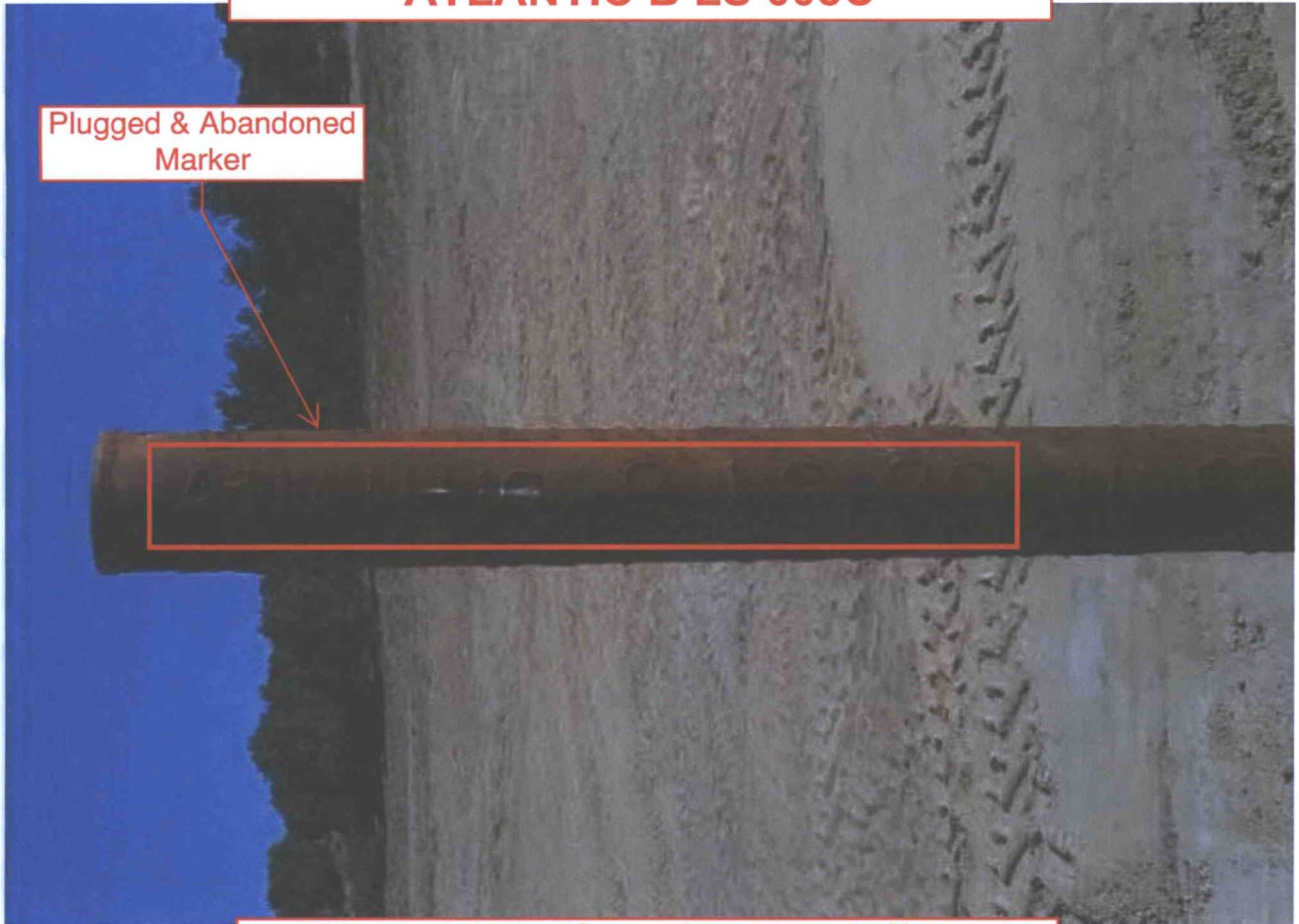
* Attach Additional Sheets If Necessary

NVF1717839189

CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	API #: 3004532178 TANK ID (if applicable): NA																																																																		
FIELD REPORT: (circle one): <u>BGT CONFIRMATION</u> / RELEASE INVESTIGATION / OTHER:		PAGE #: 1 of 1																																																																		
SITE INFORMATION: SITE NAME: ATLANTIC B LS #3C QUAD/UNIT: O SEC: 4 TWP: 30N RNG: 10W PM: NM CNTY: SJ ST: NM 1/4 - 1/4/FOOTAGE: 720'S / 2,445'E SW/SE LEASE TYPE: <u>FEDERAL</u> STATE / FEE / INDIAN LEASE #: SF080917 PROD. FORMATION: PC/MV CONTRACTOR: KELLEY O.F.S. BP - S. BEEBE		DATE STARTED: 06/28/17 DATE FINISHED: ENVIRONMENTAL SPECIALIST(S): NJV																																																																		
REFERENCE POINT: WELL HEAD (W.H.) GPS COORD.: 36.835415 X 107.887608 GL ELEV.: 6,448' 1) Excavation center GPS COORD.: 36.835208 X 107.887504 DISTANCE/BEARING FROM W.H.: 81', S22E 2) GPS COORD.: DISTANCE/BEARING FROM W.H.: 3) GPS COORD.: DISTANCE/BEARING FROM W.H.: 4) GPS COORD.: DISTANCE/BEARING FROM W.H.:																																																																				
SAMPLING DATA: CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> <th>OVM READING (ppm)</th> </tr> </thead> <tbody> <tr> <td>1) SAMPLE ID:</td> <td>5PC - NSW @ 4'</td> <td>SAMPLE DATE:</td> <td>06/28/17</td> <td>SAMPLE TIME:</td> <td>0930</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>LAB ANALYSIS:</td> <td>8015B/8021B/300.0 (CI)</td> </tr> <tr> <td>2) SAMPLE ID:</td> <td>5PC - WSW @ 4' - 6'</td> <td>SAMPLE DATE:</td> <td>06/28/17</td> <td>SAMPLE TIME:</td> <td>0940</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>LAB ANALYSIS:</td> <td>8015B/8021B/300.0 (CI)</td> </tr> <tr> <td>3) SAMPLE ID:</td> <td>5PC - SSW @ 4' - 6'</td> <td>SAMPLE DATE:</td> <td>06/28/17</td> <td>SAMPLE TIME:</td> <td>0950</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>LAB ANALYSIS:</td> <td>8015B/8021B/300.0 (CI)</td> </tr> <tr> <td>4) SAMPLE ID:</td> <td>BASE CENTER @ 7' - 8'</td> <td>SAMPLE DATE:</td> <td>06/28/17</td> <td>SAMPLE TIME:</td> <td>1000</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>LAB ANALYSIS:</td> <td>8015B/8021B/300.0 (CI)</td> </tr> <tr> <td>5) SAMPLE ID:</td> <td>BASE WEST @ 7' - 8'</td> <td>SAMPLE DATE:</td> <td>06/28/17</td> <td>SAMPLE TIME:</td> <td>1010</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>LAB ANALYSIS:</td> <td>8015B/8021B/300.0 (CI)</td> </tr> </tbody> </table>						OVM READING (ppm)	1) SAMPLE ID:	5PC - NSW @ 4'	SAMPLE DATE:	06/28/17	SAMPLE TIME:	0930					LAB ANALYSIS:	8015B/8021B/300.0 (CI)	2) SAMPLE ID:	5PC - WSW @ 4' - 6'	SAMPLE DATE:	06/28/17	SAMPLE TIME:	0940					LAB ANALYSIS:	8015B/8021B/300.0 (CI)	3) SAMPLE ID:	5PC - SSW @ 4' - 6'	SAMPLE DATE:	06/28/17	SAMPLE TIME:	0950					LAB ANALYSIS:	8015B/8021B/300.0 (CI)	4) SAMPLE ID:	BASE CENTER @ 7' - 8'	SAMPLE DATE:	06/28/17	SAMPLE TIME:	1000					LAB ANALYSIS:	8015B/8021B/300.0 (CI)	5) SAMPLE ID:	BASE WEST @ 7' - 8'	SAMPLE DATE:	06/28/17	SAMPLE TIME:	1010					LAB ANALYSIS:	8015B/8021B/300.0 (CI)
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SOIL DESCRIPTION: SOIL TYPE: <u>SAND</u> <u>SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL <u>OTHER</u> BEDROCK (SANDSTONE) SOIL COLOR: DARK YELLOWISH BROWN COHESION (ALL OTHERS): <u>NON COHESIVE</u> SLIGHTLY COHESIVE / COHESIVE <u>HIGHLY COHESIVE</u> CONSISTENCY (NON COHESIVE SOILS): <u>LOOSE</u> <u>FIRM</u> DENSE <u>VERY DENSE</u> MOISTURE: <u>DRY</u> <u>SLIGHTLY MOIST</u> MOIST / WET / SATURATED / SUPER SATURATED SAMPLE TYPE: GRAB <u>COMPOSITE</u> # OF PTS. 5 DISCOLORATION/STAINING OBSERVED: YES <u>NO</u> EXPLANATION -																																																																				
SITE OBSERVATIONS: LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION - NA APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> NO EXPLANATION: PREVIOUSLY DOCUMENTED, C-141 INITIAL REPORT SUBMITTED. EQUIPMENT SET OVER RECLAIMED AREA: YES <u>NO</u> EXPLANATION - OTHER: GAS WELL RECENTLY PLUGGED & ABANDONED (P&A). NMOCD OR BLM NOT PRESENT TO WITNESS CLOSURE SAMPLING.																																																																				
EXCAVATION DIMENSION ESTIMATION: 105 ft. X 38 ft. X 8 ft. EXCAVATION ESTIMATION (Cubic Yards): 1,300 +/- DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: <200' NMOCD TPH CLOSURE STD: 100 ppm																																																																				
SITE SKETCH <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>BGT Located: off <u>on</u> site</p> <p>Workover pit content: Sample ID: Workover pit 5-pt Comp. Chloride = ND Benzene = ND Total BTEX = 0.67mg/Kg TPH = 13,060 mg/Kg</p> <p>Workover pit initial excavation: Sample IDs: Workover pit NE Sidewall & Base 5-pt Chloride, Benzene, Total BTEX, & TPH = ND</p> </div> <div style="width: 45%;"> <p>PLOT PLAN circle: <u>attached</u></p> <p>OVM CALIB. READ. = 100.0 ppm RF=0.52 OVM CALIB. GAS = 100 ppm TIME: 8:45 am/pm DATE: 06/28/17</p> </div> </div>																																																																				
<div style="display: flex;"> <div style="width: 65%;"> <p>X - S.P.D.</p> <p>NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.</p> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">MISCELL. NOTES</p> <p>WO:</p> <p>REF #:</p> <p>VID:</p> <p>PJ #:</p> <p>Permit date(s): NA</p> <p>OCD Appr. date(s): NA</p> <p>Tank ID: OVM = Organic Vapor Meter ppm = parts per million</p> <p>BGT Sidewalls Visible: Y / N</p> <p>BGT Sidewalls Visible: Y / N</p> <p>BGT Sidewalls Visible: Y / N</p> <p>Magnetic declination: 10° E</p> </div> </div>																																																																				
NOTES: GOOGLE EARTH IMAGERY DATE: 3/15/2015. ONSITE: 06/23/17, 06/28/17.																																																																				

ATLANTIC B LS 003C

Plugged & Abandoned
Marker

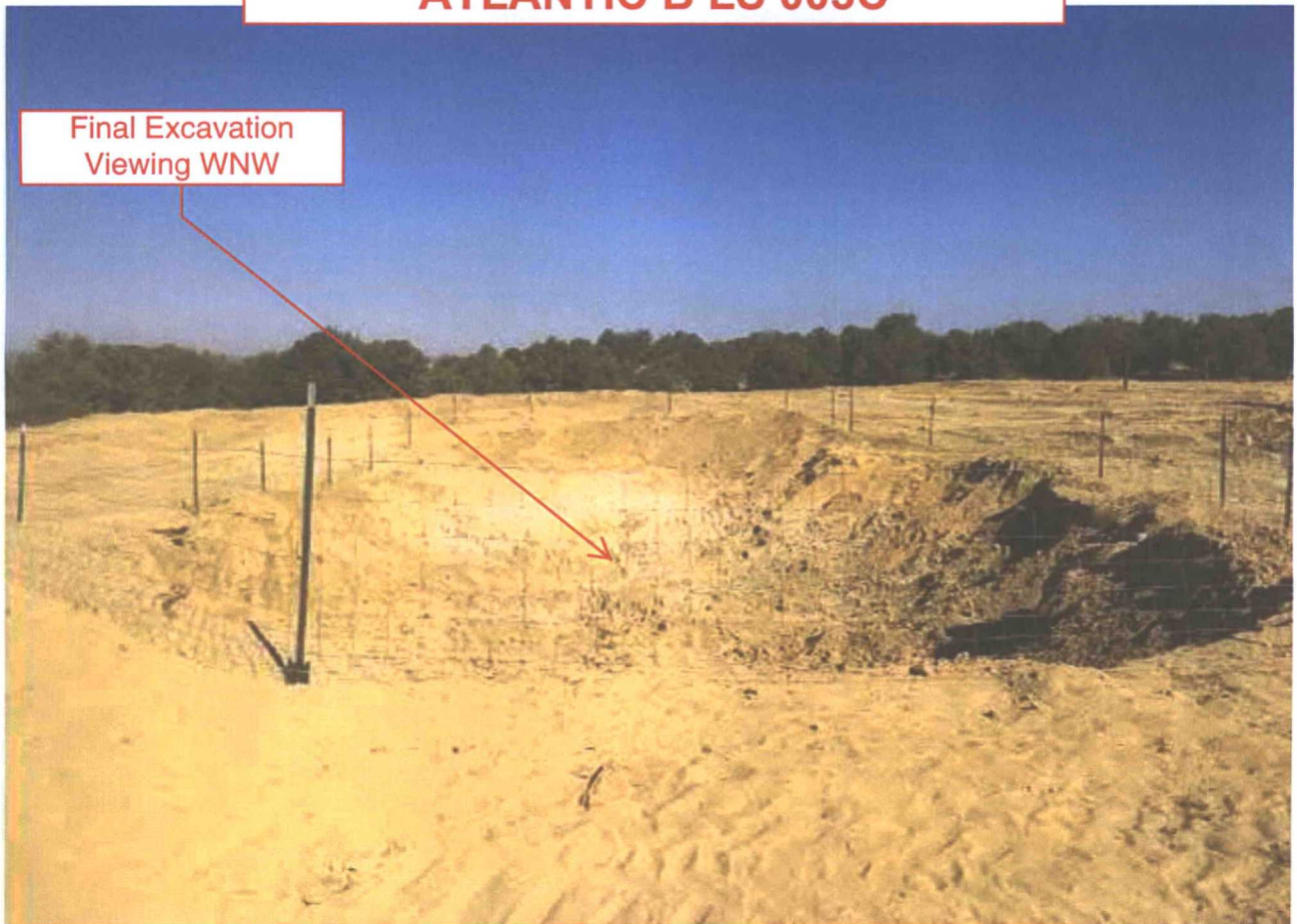


Discovery of workover pit liner

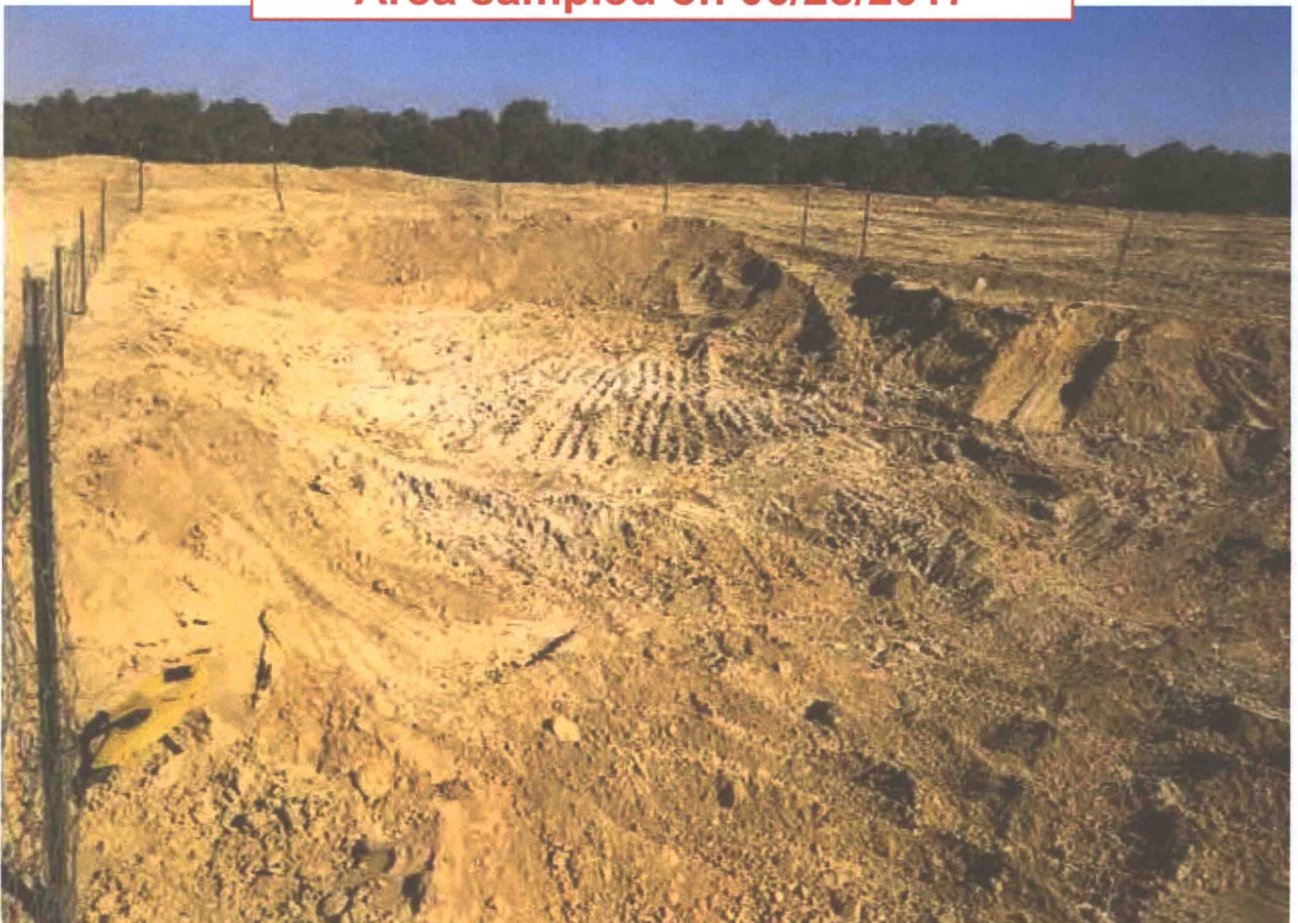


ATLANTIC B LS 003C

Final Excavation
Viewing WNW



Area sampled on 06/28/2017



Analytical Report

Lab Order 1706B91

Date Reported: 6/23/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Blagg Engineering**Project:** ATLANTIC B LS 3C**Lab ID:** 1706B91-001**Matrix:** SOIL**Client Sample ID:** Workover Pit 5-pt Comp**Collection Date:** 6/21/2017 2:25:00 PM**Received Date:** 6/22/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/22/2017 10:56:15 AM	32436
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	8400	95		mg/Kg	10	6/22/2017 12:09:19 PM	32430
Motor Oil Range Organics (MRO)	4500	480		mg/Kg	10	6/22/2017 12:09:19 PM	32430
Surr: DNOP	0	70-130	S	%Rec	10	6/22/2017 12:09:19 PM	32430
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	160	18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Surr: BFB	490	54-150	S	%Rec	5	6/22/2017 10:22:44 AM	32413
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.090		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Toluene	ND	0.18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Ethylbenzene	ND	0.18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Xylenes, Total	0.67	0.36		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Surr: 4-Bromofluorobenzene	130	66.6-132		%Rec	5	6/22/2017 10:22:44 AM	32413

Workover Pit Content**Total TPH = 13,060 mg/Kg****Closure standard = 100 mg/Kg according to the Spill & Release Guidelines**

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706D38

Date Reported: 6/28/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Workover Pit NE Sidewall 5-Pt

Project: Atlantic B LS 3C

Collection Date: 6/23/2017 2:22:00 PM

Lab ID: 1706D38-002

Matrix: MEOH (SOIL)

Received Date: 6/24/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/26/2017 12:16:08 PM	32485
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/26/2017 12:26:20 PM	32473
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/26/2017 12:26:20 PM	32473
Surr: DNOP	90.2	70-130		%Rec	1	6/26/2017 12:26:20 PM	32473
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Surr: BFB	91.7	54-150		%Rec	1	6/26/2017 11:00:04 AM	32458
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Toluene	ND	0.036		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Ethylbenzene	ND	0.036		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Xylenes, Total	ND	0.071		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/26/2017 11:00:04 AM	32458

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706D38

Date Reported: 6/28/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Workover Pit NE Base 5-Pt

Project: Atlantic B LS 3C

Collection Date: 6/23/2017 2:15:00 PM

Lab ID: 1706D38-001

Matrix: MEOH (SOIL)

Received Date: 6/24/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/26/2017 12:03:44 PM	32485
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/26/2017 11:58:21 AM	32473
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/26/2017 11:58:21 AM	32473
Surr: DNOP	89.7	70-130		%Rec	1	6/26/2017 11:58:21 AM	32473
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Surr: BFB	90.3	54-150		%Rec	1	6/26/2017 10:36:06 AM	32458
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Toluene	ND	0.037		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Ethylbenzene	ND	0.037		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Xylenes, Total	ND	0.073		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	6/26/2017 10:36:06 AM	32458

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

CLIENT: Blagg Engineering

Client Sample ID: 5 PC- NSW @ 4'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:30:00 AM

Lab ID: 1706F29-001

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 10:45:44 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Surr: DNOP	108	70-130		%Rec	1	6/29/2017 9:20:29 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Surr: BFB	93.1	54-150		%Rec	1	6/29/2017 9:38:16 AM	32541
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Toluene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Ethylbenzene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Xylenes, Total	ND	0.075		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 9:38:16 AM	32541

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-WSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:40:00 AM

Lab ID: 1706F29-002

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 10:58:09 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 9:42:40 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Surr: BFB	97.1	54-150		%Rec	1	6/29/2017 10:02:13 AM	32541
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Toluene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Ethylbenzene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Xylenes, Total	ND	0.082		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	1	6/29/2017 10:02:13 AM	32541

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-SSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:50:00 AM

Lab ID: 1706F29-003

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:10:34 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:04:49 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Surr: BFB	92.2	54-150		%Rec	1	6/29/2017 10:26:07 AM	32541
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Toluene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Ethylbenzene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Xylenes, Total	ND	0.069		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 10:26:07 AM	32541

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE CENTER @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:00:00 AM

Lab ID: 1706F29-004

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:22:59 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:26:52 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Surr: BFB	95.0	54-150		%Rec	1	6/29/2017 10:50:07 AM	32541
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Toluene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Xylenes, Total	ND	0.065		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Surr: 4-Bromofluorobenzene	123	66.6-132		%Rec	1	6/29/2017 10:50:07 AM	32541

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE WEST @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:10:00 AM

Lab ID: 1706F29-005

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:35:24 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 10:49:02 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Surr: BFB	90.3	54-150		%Rec	1	6/29/2017 11:14:08 AM	32541
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Toluene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Xylenes, Total	ND	0.067		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/29/2017 11:14:08 AM	32541

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC- NSW @ 4'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:30:00 AM

Lab ID: 1706F29-001

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 10:45:44 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Surr: DNOP	108	70-130		%Rec	1	6/29/2017 9:20:29 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Surr: BFB	93.1	54-150		%Rec	1	6/29/2017 9:38:16 AM	R43884
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Toluene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Ethylbenzene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Xylenes, Total	ND	0.075		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 9:38:16 AM	R43884

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-WSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:40:00 AM

Lab ID: 1706F29-002

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 10:58:09 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 9:42:40 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Surr: BFB	97.1	54-150		%Rec	1	6/29/2017 10:02:13 AM	R43884
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Toluene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Ethylbenzene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Xylenes, Total	ND	0.082		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	1	6/29/2017 10:02:13 AM	R43884

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-SSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:50:00 AM

Lab ID: 1706F29-003

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:10:34 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:04:49 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Surr: BFB	92.2	54-150		%Rec	1	6/29/2017 10:26:07 AM	R43884
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Toluene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Ethylbenzene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Xylenes, Total	ND	0.069		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 10:26:07 AM	R43884

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE CENTER @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:00:00 AM

Lab ID: 1706F29-004

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:22:59 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:26:52 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Surr: BFB	95.0	54-150		%Rec	1	6/29/2017 10:50:07 AM	R43884
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Toluene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Xylenes, Total	ND	0.065		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Surr: 4-Bromofluorobenzene	123	66.6-132		%Rec	1	6/29/2017 10:50:07 AM	R43884

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Blagg Engineering**Client Sample ID:** BASE WEST @ 7'-8'**Project:** ATLANTIC B LS 3C**Collection Date:** 6/28/2017 10:10:00 AM**Lab ID:** 1706F29-005**Matrix:** SOIL**Received Date:** 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	6/29/2017 11:35:24 AM	32562
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 10:49:02 AM	32558
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Surr: BFB	90.3	54-150		%Rec	1	6/29/2017 11:14:08 AM	R43884
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Toluene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Xylenes, Total	ND	0.067		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/29/2017 11:14:08 AM	R43884

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client: BP AMERICA

BLAGG ENGINEERING Inc.

Mailing Address:

Phone #: (505) 320-1183

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type)

Turn-Around Time: By FRIDAY
6/23/2017

Project Name:
ATLANTIC B Ls 3C

Project #:

Project Manager:
STEVE MOSKAL

Sampler: JEFF BLAGG

Sample Temperature: 1.0

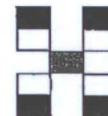
[illegible]

Date: 6/21/2017	Time: 1521	Relinquished by: Jeff Blaney
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Date:	Time:	Relinquished by:
12/1/17	1950	Christine Walters

Received by:	Date	Time
Christine L. White	6/21/2017	1521

Received by: *[Signature]* Date *06/22/17* Time *0735*



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

	X	BTEX + MTBE THMs 's (8021)
		BTEX + MTBE + TPH (Gas only)
	X	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)
	X	CHLORIDE
		Air Bubbles (Y or N)

Remarks: BILL BP CONTACT: STEVE MOSKAL
VID: VM056HQFEC

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

Chain-of-Custody Record

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

Mailing Address: **200 Energy Court**

Farmington, NM 87401

Phone #: **(505) 326-9497**

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 # 3C

Project #:

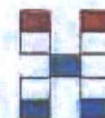
Project Manager:

STEVE MOSKAL

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: **10**



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	At 06/29/17 Container Type and # <i>MeachKit</i>	Preservative Type	HEAL No. <i>1706F29</i>	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8250B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)
6/28/17	0930	SOIL	SPC-NSW e 4'	402-1	COOL	201	✓	✓										✓		5	
6/28/17	0940	SOIL	SPC-WSW e 4'-6'	402-1	COOL	202	✓	✓										✓		5	
6/28/17	0950	SOIL	SPC-SSW e 4'-6'	402-1	COOL	203	✓	✓										✓		5	
6/28/17	1000	SOIL	BASE CENTER e 7'-8'	402-1	COOL	204	✓	✓										✓		5	
6/28/17	1010	SOIL	BASE WEST e 7'-8'	402-1	COOL	205	✓	✓										✓		5	

Date: 6/28/17	Time: 1710	Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date: 6/28/17	Time: 1710	Remarks: BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE: CONTACT: STEVE MOSKAL / SABRE BEEBE BILLING INFO. EMAILED TO HALL THIS MORNING.
Date: 6/28/17	Time: 1850	Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date: 6/29/17	Time: 0730	

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 noted on the analytical report.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	MB-32485	SampType	mblk	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	32485	RunNo	43787					
Prep Date	6/26/2017	Analysis Date	6/26/2017	SeqNo	1380561	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-32485	SampType	lcs	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	32485	RunNo	43787					
Prep Date	6/26/2017	Analysis Date	6/26/2017	SeqNo	1380562	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
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#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	MB-32473	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	32473	RunNo:	43777					
Prep Date:	6/26/2017	Analysis Date:	6/26/2017	SeqNo:	1378964	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.2	70	130			

Sample ID	LCS-32473	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	32473	RunNo:	43777					
Prep Date:	6/26/2017	Analysis Date:	6/26/2017	SeqNo:	1379082	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	73.2	114			
Surr: DNOP	4.7		5.000		93.3	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
PQL Practical Quantitative Limit
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#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	MB-32458	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	32458	RunNo:	43789					
Prep Date:	6/23/2017	Analysis Date:	6/26/2017	SeqNo:	1379903	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	920		1000		92.3	54	150			

Sample ID	LCS-32458	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	32458	RunNo:	43789					
Prep Date:	6/23/2017	Analysis Date:	6/26/2017	SeqNo:	1379904	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	99.7	76.4	125			
Surr: BFB	1000		1000		105	54	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
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#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	MB-32458		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	32458		RunNo:	43789			
Prep Date:	6/23/2017		Analysis Date:	6/26/2017		SeqNo:	1379917		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		122	66.6	132			

Sample ID	LCS-32458		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	32458		RunNo:	43789			
Prep Date:	6/23/2017		Analysis Date:	6/26/2017		SeqNo:	1379918		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.2	0.050	1.000	0	115	80	120			
Ethylbenzene	1.2	0.050	1.000	0	117	80	120			
Xylenes, Total	3.5	0.10	3.000	0	118	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

Qualifiers:

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, 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: 1706D38

RcptNo: 1

Received By: Andy Jansson 6/24/2017 10:00:00 AM *ayj*
Completed By: Andy Jansson 6/24/2017 10:49:46 AM *ayj*
Reviewed By: *AL* 6/26/17

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? _____
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F29

30-Jun-17

Client: Blagg Engineering

Project: ATLANTIC B LS 3C

Sample ID	MB-32562		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 32562		RunNo: 43889					
Prep Date:	6/29/2017		Analysis Date: 6/29/2017		SeqNo: 1384557		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-32562		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 32562		RunNo: 43889					
Prep Date:	6/29/2017		Analysis Date: 6/29/2017		SeqNo: 1384558		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
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#: 1706F29

30-Jun-17

Client: Blagg Engineering

Project: ATLANTIC B LS 3C

Sample ID	MB-32558	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 32558			RunNo: 43873					
Prep Date:	6/29/2017	Analysis Date: 6/29/2017			SeqNo: 1382817		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-32558		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 32558		RunNo: 43873					
Prep Date:	6/29/2017		Analysis Date: 6/29/2017		SeqNo: 1382818		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.8	73.2	114			
Surr: DNOP	5.1		5.000		103	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
PQL Practical Quantitative Limit
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#: 1706F29

30-Jun-17

Client: Blagg Engineering
Project: ATLANTIC B LS 3C

Sample ID	MB-32541	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	32541	RunNo:	43884					
Prep Date:	6/28/2017	Analysis Date:	6/29/2017	SeqNo:	1383897	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	54	150			

Sample ID	LCS-32541	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	32541	RunNo:	43884					
Prep Date:	6/28/2017	Analysis Date:	6/29/2017	SeqNo:	1383898	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	76.4	125			
Surr: BFB	1100		1000		107	54	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
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#: 1706F29

30-Jun-17

Client: Blagg Engineering

Project: ATLANTIC B LS 3C

Sample ID	MB-32541	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	32541	RunNo:	43884					
Prep Date:	6/28/2017	Analysis Date:	6/29/2017	SeqNo:	1383918	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID	LCS-32541	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	32541	RunNo:	43884					
Prep Date:	6/28/2017	Analysis Date:	6/29/2017	SeqNo:	1383919	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.1	0.050	1.000	0	113	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.5	0.10	3.000	0	116	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

Qualifiers:

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1706F29

RcptNo: 1

Received By: Anne Thorne

6/29/2017 7:30:00 AM

Anne Thorne

Completed By: Anne Thorne

6/29/2017 7:47:10 AM

Anne Thorne

Reviewed By:

[Signature]

6/29/17

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			