

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

JAN 09 2017

Form C-141
Revised August 8, 2011

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

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: Hughes LS 020	Facility Type: Natural gas well
Surface Owner: Federal	Mineral Owner: Federal
API No. 3004521038	

LOCATION OF RELEASE

Unit Letter E	Section 21	Township 29N	Range 08W	Feet from the 1,650	North/South Line North	Feet from the 850	East/West Line West	County: San Juan
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Latitude 36.71371° Longitude -107.68674°

NATURE OF RELEASE



Type of Release: produced water, hydrocarbons	Volume of Release: unknown	Volume Recovered: N/A
Source of Release: below grade tank - 21 bbl	Date and Hour of Occurrence: none	Date and Hour of Discovery: October 20, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
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.* Sampling of the soil beneath the BGT was done during removal. Sampling results indicate a release had occurred. The release was remediated via excavation, meeting the spill and release guidelines. Field reports and laboratory results are attached.

Describe Area Affected and Cleanup Action Taken.* The area of impacts was excavated and sampled with results below the spill and release guidelines. Attached is a field report and sample results verifying the area of impacts were fully delineated.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>1/23/17</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: January 5, 2017	Phone: 505-326-9497	

* Attach Additional Sheets If Necessary

NC 17023394 70

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CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	API #: 3004521038 TANK ID (if applicable): A
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FIELD REPORT:

(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:

PAGE #: **1** of **1**

SITE INFORMATION:		SITE NAME: HUGHES LS # 20
QUAD/UNIT: E SEC: 21 TWP: 29N RNG: 8W PM: NM CNTY: SJ ST: NM	DATE STARTED: 10/20/16 DATE FINISHED: _____	
1/4 - 1/4 FOOTAGE: 1.650'N / 850'W SW/NW LEASE TYPE: <u>FEDERAL</u> / STATE / FEE / INDIAN		ENVIRONMENTAL SPECIALIST(S): NJV
LEASE #: SF078046 PROD. FORMATION: PC CONTRACTOR: STRIKE BP - J. GONZALES		

REFERENCE POINT:	WELL HEAD (W.H.) GPS COORD.: 36.71378 X 107.68679 GL ELEV.: 6,450'
1) 21 BGT (SW/DB)	GPS COORD.: 36.71371 X 107.68674 DISTANCE/BEARING FROM W.H.: 22', S37.5E
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	OVM READING (ppm)
1) SAMPLE ID: 1 @ 7' (21) SAMPLE DATE: 10/20/16 SAMPLE TIME: 0920 LAB ANALYSIS: NA		431
2) SAMPLE ID: ALSO SEE SITE SKETCH BELOW SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		
3) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		
4) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____		

SOIL DESCRIPTION:	SOIL TYPE: <u>SAND</u> / <u>SILTY SAND</u> / SILT / SILTY CLAY / CLAY / GRAVEL / <u>OTHER</u> BEDROCK (SANDSTONE) 3 - 7 FT. BELOW GRADE.
SOIL COLOR: MOSTLY GRAYISH ORANGE	PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
COHESION (ALL OTHERS): <u>NON COHESIVE</u> / SLIGHTLY COHESIVE / COHESIVE / <u>HIGHLY COHESIVE</u>	DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
CONSISTENCY (NON COHESIVE SOILS): <u>LOOSE</u> / <u>FIRM</u> / DENSE / <u>VERY DENSE</u>	HC ODOR DETECTED: YES / NO EXPLANATION - PHYSICALLY FROM DISCOLORED SOILS/BEDROCK.
MOISTURE: DRY / <u>SLIGHTLY MOIST</u> / MOIST / WET / SATURATED / SUPER SATURATED	ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION - FROM HYDROVACUING BGT.
SAMPLE TYPE: GRAB / <u>COMPOSITE</u> - # OF PTS. 5	DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - VARYING SHADES OF GRAY TO BLACK MOSTLY WITHIN BEDROCK (SANDSTONE)

SITE OBSERVATIONS:	LOST INTEGRITY OF EQUIPMENT: YES / <u>NO</u> EXPLANATION - _____
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: SOIL/BEDROCK DISCOLORATION WITH APPARENT HYDROCARBON ODOR.	
EQUIPMENT SET OVER RECLAIMED AREA: YES / <u>NO</u> EXPLANATION - _____	
OTHER: NMOC D REP. PRESENT DURING SAMPLE COLLECTION. COLLECTED CONFIRMATION SAMPLE INITIALLY, THEN PROCEEDED TO CONDUCT ASSESSMENT / REMEDIATION SIMOPS.	
SOIL IMPACT DIMENSION ESTIMATION: NA ft. X NA ft. X NA ft. EXCAVATION ESTIMATION (Cubic Yards): NA	
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: <1,000' NMOC D TPH CLOSURE STD: 1,000 ppm	

SITE SKETCH

BGT Located : off / on site

PLOT PLAN circle: attached

Sample ID	Date	Time	OVM (ppm)
3PC - NSW @ 3'-6"	10/20/16	1113	359
3PC - ESW @ 3'-6"	10/20/16	1115	413
3PC - SSW @ 3'-6"	10/20/16	1117	305
3PC - WSW @ 4'-6"	10/20/16	1118	603
5PC - EB @ 7'	10/20/16	1121	225

ALL SAMPLES LISTED ABOVE SUBMITTED TO LAB FOR BTEX (8021B), TPH (8015B), CHLORIDE (300.0).

X - S.P.D.

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.

MISCELL. NOTES	
WO:	
REF #: P - 738	
VID: VDRINKWJA1	
PJ #:	
Permit date(s): 06/09/10	
OCD Appr. date(s): 07/08/16	
Tank ID	OVM = Organic Vapor Meter ppm = parts per million
B	BGT Sidewalls Visible: Y / <u>(N)</u>
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N
Magnetic declination: 10° E	

NOTES: **GOOGLE EARTH IMAGERY DATE: 3/15/2015.**

ONSITE: **09/01/16**

revised: 11/26/13 BEI1005E-6.SKF

Analytical Report

Lab Order 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-NSW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:13:00 AM

Lab ID: 1610A35-001

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 11:52:50 AM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/21/2016 9:58:11 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 9:58:11 AM	28209
Surr: DNOP	91.5	70-130		%Rec	1	10/21/2016 9:58:11 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	19	7.4		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Surr: BFB	120	68.3-144		%Rec	2	10/21/2016 12:01:07 PM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Toluene	ND	0.074		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Ethylbenzene	ND	0.074		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Xylenes, Total	0.75	0.15		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	2	10/21/2016 12:01:07 PM	28196

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

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

Analytical Report

Lab Order 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-ESW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:15:00 AM

Lab ID: 1610A35-002

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:05:15 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	16	10		mg/Kg	1	10/21/2016 10:20:51 AM	28209
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/21/2016 10:20:51 AM	28209
Surr: DNOP	92.8	70-130		%Rec	1	10/21/2016 10:20:51 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	44	17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Surr: BFB	118	68.3-144		%Rec	5	10/21/2016 10:50:29 AM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.087		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Toluene	ND	0.17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Ethylbenzene	ND	0.17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Xylenes, Total	1.7	0.35		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	10/21/2016 10:50:29 AM	28196

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

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

Analytical Report

Lab Order 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-SSW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:17:00 AM

Lab ID: 1610A35-003

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:42:28 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	13	9.4		mg/Kg	1	10/21/2016 10:43:29 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 10:43:29 AM	28209
Surr: DNOP	95.8	70-130		%Rec	1	10/21/2016 10:43:29 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	21	21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Surr: BFB	99.3	68.3-144		%Rec	5	10/21/2016 11:14:02 AM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.10		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Toluene	ND	0.21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Ethylbenzene	ND	0.21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Xylenes, Total	0.69	0.41		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	10/21/2016 11:14:02 AM	28196

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

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

Analytical Report

Lab Order 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-WSW @ 4'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:18:00 AM

Lab ID: 1610A35-004

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:54:52 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	35	9.9		mg/Kg	1	10/21/2016 11:06:18 AM	28209
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2016 11:06:18 AM	28209
Surr: DNOP	93.4	70-130		%Rec	1	10/21/2016 11:06:18 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	21	19		mg/Kg	5	10/21/2016 10:08:04 AM	G38127
Surr: BFB	120	68.3-144		%Rec	5	10/21/2016 10:08:04 AM	G38127
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.093		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Toluene	ND	0.19		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Ethylbenzene	ND	0.19		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Xylenes, Total	0.51	0.37		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	10/21/2016 10:08:04 AM	B38127

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

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

Analytical Report

Lab Order 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5PC-EB @ 7' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:21:00 AM

Lab ID: 1610A35-005

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 1:07:16 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/21/2016 11:29:08 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 11:29:08 AM	28209
Surr: DNOP	88.4	70-130		%Rec	1	10/21/2016 11:29:08 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	8.0		mg/Kg	2	10/21/2016 10:32:27 AM	G38127
Surr: BFB	98.9	68.3-144		%Rec	2	10/21/2016 10:32:27 AM	G38127
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Toluene	ND	0.080		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Ethylbenzene	ND	0.080		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Xylenes, Total	ND	0.16		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	2	10/21/2016 10:32:27 AM	B38127

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

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

Chain-of-Custody Record

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

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

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

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

SAME

☐ Standard

☒ Rush

DAY

Project Name:

HUGHES LS # 20

Project #:

Project Manager:

NELSON VELEZ

Sampler:

NELSON VELEZ

On Ice:

☒ Yes

☐ No

Sample Temperature

1-1

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	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)
10/20/16	1113	SOIL	3PC - NSW @ 3' - 6' (21)	4 oz. - 1	Cool	001	✓	✓										✓		3	
10/20/16	1115	SOIL	3PC - ESW @ 3' - 6' (21)	4 oz. - 1	Cool	-002	✓	✓										✓		3	
10/20/16	1117	SOIL	3PC - SSW @ 3' - 6' (21)	4 oz. - 1	Cool	-003	✓	✓										✓		3	
10/20/16	1118	SOIL	3PC - WSW @ 4' - 6' (21)	4 oz. - 1	Cool	-004	✓	✓										✓		3	
10/20/16	1121	SOIL	5PC - EB @ 7' (21)	4 oz. - 1	Cool	-005	✓	✓										✓		5	

Date: *10/20/16* Time: *1404* Relinquished by: *[Signature]*

Received by: *[Signature]*

Date: *10/20/16* Time: *1404*

Date: *10/20/16* Time: *2048* Relinquished by: *[Signature]*

Received by: *[Signature]*

Date: *10/21/16* Time: *0815*

Remarks:

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

Vance Hixon
VID: VHIXONEVB2

Steve Moskal
VDRINKWJA1

Steve Moskal
VMOS6HQFEC

Reference #

P - 738

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A35

25-Oct-16

Client: Blagg Engineering

Project: Hughes LS 20

Sample ID	MB-28232	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	28232	RunNo:	38151					
Prep Date:	10/21/2016	Analysis Date:	10/21/2016	SeqNo:	1190570	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28232	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	28232	RunNo:	38151					
Prep Date:	10/21/2016	Analysis Date:	10/21/2016	SeqNo:	1190571	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A35

25-Oct-16

Client: Blagg Engineering

Project: Hughes LS 20

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G38127	RunNo:	38127					
Prep Date:		Analysis Date:	10/21/2016	SeqNo:	1190255	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		93.7	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G38127	RunNo:	38127					
Prep Date:		Analysis Date:	10/21/2016	SeqNo:	1190256	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	98.0	74.6	123			
Surr: BFB	920		1000		92.5	68.3	144			

Sample ID	MB-28196	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	28196	RunNo:	38126					
Prep Date:	10/20/2016	Analysis Date:	10/21/2016	SeqNo:	1190268	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	850		1000		85.1	68.3	144			

Sample ID	LCS-28196	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	28196	RunNo:	38126					
Prep Date:	10/20/2016	Analysis Date:	10/21/2016	SeqNo:	1190269	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74.6	123			
Surr: BFB	920		1000		91.6	68.3	144			

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#: 1610A35

25-Oct-16

Client: Blagg Engineering

Project: Hughes LS 20

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: B38127			RunNo: 38127					
Prep Date:		Analysis Date: 10/21/2016			SeqNo: 1190261		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID	100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: B38127			RunNo: 38127					
Prep Date:		Analysis Date: 10/21/2016			SeqNo: 1190262		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.9	75.2	115			
Toluene	0.95	0.050	1.000	0	94.8	80.7	112			
Ethylbenzene	0.92	0.050	1.000	0	92.2	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.7	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	MB-28196	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 28196			RunNo: 38126					
Prep Date:	10/20/2016	Analysis Date: 10/21/2016			SeqNo: 1190293		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID	LCS-28196	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 28196			RunNo: 38126					
Prep Date:	10/20/2016	Analysis Date: 10/21/2016			SeqNo: 1190294		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.025	1.000	0	76.6	75.2	115			
Toluene	0.88	0.050	1.000	0	87.7	80.7	112			
Ethylbenzene	0.97	0.050	1.000	0	96.6	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	95.5	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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



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: 1610A35

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

10/21/2016 8:15:00 AM

Completed By: Ashley Gallegos

10/21/2016 8:33:26 AM

Reviewed By:

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			