<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District III
1000 Rio Brazos Road, Aztec, NM 87410
District III District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

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

						OPERA'	ΓOR	Initi	al Report	\boxtimes	Final Rep	port			
Name of Co	Name of Company BP America Production Company						Contact Steve Moskal								
		Court, Fari	nington,	NM 87401			No. (505) 326-9								
Facility Nar	ne HUGI	HES 001E				Facility Typ	e Natural Gas	Well							
Surface Ow	ner Feder	al		Mineral O	wner l	Bureau of I	and Managem	ent	API No	. 3004525	457				
				LOCA	TION	OF RE	LEASE								
Unit Letter C	Section 21	Township 29N	Range 8W	Feet from the 790	North/	South Line ORTH	Feet from the 1,520		East/West Line County WEST SAN JUAN						
				Latitude 36.7				_							
NATURE OF RELEASE															
			BGT (oi	l/condensate)			Release Unknow		The second secon	Recovered					
Source of Re	lease 95 bb	ol BGT				Unknown	lour of Occurrence	e		i Hour of Di (during BG					
Was Immedia	ate Notice (Yes [No Not Rec	quired	If YES, To	Whom?								
By Whom?					•	Date and F	our		OIL	CONS	III m		\dashv		
Was a Water	course Reac	hed?					lume Impacting th	he Water	rcourse.	THO. L	IV D	ST. 3			
	,		Yes 🛚	No						CONS. D	2040				
If a Watercou	irse was Im	pacted, Descri	be Fully.*	k						9 2	2010				
after remova chlorides we	d. 5 point or re below th	composite sar e BGT perm	nple colle it closure	n Taken.* Nature ected for laborator plan standards. ' s are attached.	ry anal	yses (TPH, I	TEX, & chloride	e). Lab	results fo	r benzene, t	otal B'	ΓΕΧ, &			
				en.* Hydrocarbo									ill		
& Release G	uidelines 10	or 1PH, there	eiore no c	leanup action was	necess	sary. Final I	aboratory results	suppor	t closure	of the BG1	юсано	on.			
regulations al public health should their o	I operators or the envir perations hament. In a	are required to conment. The ave failed to a ddition, NMO	acceptance dequately CD accep	is true and completed of a C-141 report investigate and relations of a C-141 report investigate and relations of a C-141 relations.	lease no t by the mediate	otifications are NMOCD me contaminati	nd perform correct arked as "Final Re on that pose a thre	tive action eport" do eat to gro	ons for rele es not reli ound water	eases which eve the oper , surface wa	may en ator of ter, hu	danger liability nan health			
Signature:	Dag	Str	2				OIL CONS		1	DIVISIO	N .	4	7		
Printed Name	: Steve Mo	oskal			Approved by Environmental Specialist:										
Title: Enviro	onmental F	ield Coordina	ator		1	Approval Dat	e: 12/5/1	6 E	xpiration	Date					
E-mail Addre	ss: steven.	moskal@bp.c	com			Conditions of	Approval:	_		Attached					
Date: Octobe	r 26, 2016		Phone	: (505) 326.9497											

* Attach Additional Sheets If Necessary #1005 1631 33985 5



CLIENT: BP	BLAGG ENGINEER P.O. BOX 87, BLOOMFIE (505) 632-11	LD, NM 87413	API#: 3004525457 TANK ID (if applicble): A
FIELD REPORT:	(circle one): BGT CONFIRMATION]/ RELEASE INVEST		PAGE #: 2 of 2
SITE INFORMATION QUAD/UNIT: C SEC: 21 TWP: 1/4-1/4/FOOTAGE: 790'N / 1,520	29N RNG: 8W PM: NM CN 'W NE/NW LEASE TYPE: FEDERA	TY: SJ ST: NM	DATE STARTED: 08/24/16 DATE FINISHED: ENVIRONMENTAL
REFERENCE POINT 95 BGT (SW/DB)	ROD. FORMATION: MV CONTRACTOR:	36.71615 X 107.68445 7.68475 DISTANCE/BEA	SPECIALIST(S): NJV GL ELEV.: 6,452' RING FROM W.H.: 99', S84.5W
2) 3) 4)	GPS COORD.: GPS COORD.:	DISTANCE/BEA	RING FROM W.H.: RING FROM W.H.: RING FROM W.H.:
SAMPLING DATA: 1) SAMPLE ID: 5PC - TB @6' 2) SAMPLE ID: TH1 @8.5 3) SAMPLE ID: TH2 @9' 4) SAMPLE ID:		1220 LAB ANALYSIS: 801 1235 LAB ANALYSIS: 801	5B/8021B/300.0 (CI) 921 5B/8021B/300.0 (CI) 34.5 5B/8021B/300.0 (CI) 29.8
SOIL COLOR: MOSTLY DARK COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY CONSISTENCY (NON COHESIVE SOILS): LO MOISTURE: DRY SLIGHTLY MOIST MOIST / M SAMPLE TYPE: GRAB COMPOSITE #	COHESIVE COHESIVE / HIGHLY COHESIVE DENSITY (COHESIVE DENSITY (COHESIVE DENSITY (COHESIVE DENSITY (COHESIVE DENSITY) (COHESIVE	DENON PLASTIC SLIGHTLY PLASTIC CONTROL SIVE CLAYS & SILTS): SOFT FIRM CONTROL PHY EMOVAL. AYING WETNESS: YES / NO EXPLAN	
SITE OBSERVATION APPARENT EVIDENCE OF A RELEASE OBSERVE EQUIPMENT SET OVER RECLAIMED AREA: OTHER: ONLY ABLE TO ADVANCE 2 TEX HOLES HAD SIMILAR LITHOLOGY 8 SOIL IMPACT DIMENSION ESTIMATION:	S: LOST INTEGRITY OF EQUIPMENT: YES NO EXPLANATION: DISCOLUES / NO EXPLANATION: DISCOLUES / NO EXPLANATION - UNKNOWN AT THIS TIME THOLES FOR DELINEATION DUE TO SUBSURF DID NOT SHOW ANY EVIDENCE OF IMPACTS. NA ft. X NA ft. X NA AREST WATER SOURCE: >1,000' NEAREST SURF	IATION - BGT BOTTOM CORRO LORED SOILS & PHYSICAL HYI IE. ACE UTILITIES ON NORTH & E A ft. EXCAVATION EST	AST SIDES OF BGT. BOTH TEST TIMATION (Cubic Yards): NA
SITE SKETCH [BGT Located : off on site PLOT F SUBSURFACE ENTERPRISE PIPELINE GTL PIPELINE	PLAN circle: attached OVM	CALIB. READ. = 53.0 ppm RF = 0.52
FENCE T.H	BERM SEPARATOR T.H.2	TO W.H. P	VO: EF #: P - 655 ID: VHIXONEVB2 J #: ermit date(s): 06/09/10 CD Appr. date(s): 08/29/16 nk OVM = Organic Vapor Meter
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELI	DOWN SLOPE DIRECTION I DEPRESSION; B.G. = BELOW GRADE; B = BELOW, T.H. = TEST HOLW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; RWALL; DW-DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM; DB - D	X - S.P.D. E; ~= APPROX.; W.H. = WELL HEAD; W. = RETAINING WALL; NA - NOT	ppm = parts per million

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: 5PC-TB@6'(95)

 Project:
 Hughes 1E
 Collection Date: 8/24/2016 11:40:00 AM

 Lab ID:
 1608E28-001
 Matrix: MEOH (SOIL)
 Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Chloride	ND	30		mg/Kg	20	8/25/2016 11:13:05 AM	27168
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s				Analyst:	TOM
Diesel Range Organics (DRO)	260	9.7		mg/Kg	1	8/25/2016 10:52:39 AM	27162
Motor Oil Range Organics (MRO)	49	48		mg/Kg	1	8/25/2016 10:52:39 AM	27162
Surr: DNOP	86.5	70-130		%Rec	1	8/25/2016 10:52:39 AM	27162
EPA METHOD 8015D: GASOLINE RAM	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	720	160		mg/Kg	50	8/25/2016 12:53:45 PM	G36759
Surr: BFB	160	68.3-144	S	%Rec	50	8/25/2016 12:53:45 PM	G36759
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.82		mg/Kg	50	8/25/2016 12:53:45 PM	B36759
Toluene	ND	1.6		mg/Kg	50	8/25/2016 12:53:45 PM	B36759
Ethylbenzene	2.7	1.6		mg/Kg	50	8/25/2016 12:53:45 PM	B36759
Xylenes, Total	39	3.3		mg/Kg	50	8/25/2016 12:53:45 PM	B36759
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	50	8/25/2016 12:53:45 PM	B36759

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	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 Page 1 of 5
	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 1608E26

Date Reported: 8/26/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH1-8.5' (West Side)

Project: Hughes 1E

Collection Date: 8/24/2016 12:20:00 PM

Lab ID: 1608E26-001

Matrix: MEOH (SOIL) Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	8/25/2016 10:48:15 AM	27168
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/25/2016 11:14:36 AM	27162
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/25/2016 11:14:36 AM	27162
Surr: DNOP	87.2	70-130	%Rec	1	8/25/2016 11:14:36 AM	27162
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	8/25/2016 11:39:54 AM	G36759
Surr: BFB	85.0	68.3-144	%Rec	1	8/25/2016 11:39:54 AM	G36759
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.017	mg/Kg	1	8/25/2016 11:39:54 AM	B36759
Toluene	ND	0.035	mg/Kg	1	8/25/2016 11:39:54 AM	B36759
Ethylbenzene	ND	0.035	mg/Kg	1	8/25/2016 11:39:54 AM	B36759
Xylenes, Total	ND	0.069	mg/Kg	1	8/25/2016 11:39:54 AM	B36759
Surr: 4-Bromofluorobenzene	89.0	80-120	%Rec	1	8/25/2016 11:39:54 AM	B36759

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

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 Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1608E26

Date Reported: 8/26/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

1608E26-002

Lab ID:

Project: Hughes 1E

Client Sample ID: TH2-9' (South Side) Collection Date: 8/24/2016 12:35:00 PM

Received Date: 8/25/2016 8:00:00 AM Matrix: MEOH (SOIL)

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	45	30	mg/Kg	20	8/25/2016 11:00:40 AM	27168
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	8/25/2016 11:36:28 AM	27162
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	8/25/2016 11:36:28 AM	27162
Surr: DNOP	90.0	70-130	%Rec	1	8/25/2016 11:36:28 AM	27162
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	8/25/2016 12:04:33 PM	G36759
Surr: BFB	86.6	68.3-144	%Rec	1	8/25/2016 12:04:33 PM	G36759
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.019	mg/Kg	1	8/25/2016 12:04:33 PM	B36759
Toluene	ND	0.038	mg/Kg	1	8/25/2016 12:04:33 PM	B36759
Ethylbenzene	ND	0.038	mg/Kg	1	8/25/2016 12:04:33 PM	B36759
Xylenes, Total	ND	0.075	mg/Kg	1	8/25/2016 12:04:33 PM	B36759
Surr: 4-Bromofluorobenzene	92.3	80-120	%Rec	1	8/25/2016 12:04:33 PM	B36759

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

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 6 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

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≀A/QC Pa			Level 4 (Full Validation)		NELSON V	ELEZ		(8021B)	s only)	/ MRO)		1	(2)	PO4,SO	8082 PCB's			water - 300			e l
ccredita		□ Other		Sampler:	NELSON V ☑ Yes		97 V	8) S , GM	+ MTBE + TPH (Gas only)	/ DRO	18.1)	504.I)	82/0SIMS)	NO ₂ .	/ 8082	1	(+	300.0 / wa			composite sample ubbles (Y or N)
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Date	Time	Matrix	Sample Request ID	Container Type and #							TPH (Method 418.1)	EDB (Method	PAH (8310 or 8	Anions (F,CI,NO3,NO7,PO4,SO4)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil		Grab sample	5 pt. composite sa Air Bubbles (Y or N)
8/24/16	1140	SOIL	5PC - TB @ 6 ' (95)	4 oz 1	Cool	-00	4	٧		٧				T				٧		_	V
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	If necessary,	samples sub	mitted to Hall Environmental may be sui	bcontracted to other	accredited laboratorie	es. This serves as	notice o	f this p	ossibi	lity. A	ity. Any sub-contracted data will be clearly notated on the analytical report.				ort.						

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A/QC Pa ☑ Stand			Level 4 (Full Validation)		NELSON V	ELEZ	₩ (8021B)	s only)	/ MRO)			(S)		PO4,SO	2 PCB's			water - 300			e	
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Date	Time	Matrix	Sample Request ID	Container Type and #	WELSON VELEZ WE						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 (soll		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)		
124/16	1220	SOIL	TH1 @ 8.5'	4021	CooL	-001	1		/									V		V		
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	ii necessary	samples sub	omitted to Hall Environmental may be su	pcontracted to other	accredited laboratorie	es. This serves as notice of	of this	possit	oility.	Any sul	b-conf	tracted	d data	will b	e clea	arly no	tated o	on the a	ınalytic	cal rep	oort.	

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E28

26-Aug-16

Client:

Blagg Engineering

Project:

Hughes 1E

Sample ID MB-27168

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

8/25/2016

8/25/2016

Batch ID: 27168

1.5

RunNo: 36775

SeqNo: 1139951

Units: mg/Kg

Prep Date: Analyte

Prep Date:

Chloride

Result

ND

Analysis Date: 8/25/2016 PQL

SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD

Qual

Sample ID LCS-27168

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 27168

RunNo: 36775

SeqNo: 1139952

Units: mg/Kg

RPDLimit

Analyte

Analysis Date: 8/25/2016

SPK value SPK Ref Val %REC

LowLimit

%RPD

RPDLimit Qual

Chloride

Result PQL 14 1.5

15.00

94.5

90

HighLimit

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

S % Recovery outside of range due to dilution or matrix Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 2 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E28

26-Aug-16

Client:

Blagg Engineering

Project: Hughes	1E				200					
Sample ID LCS-27162	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	n ID: 27	162	F	RunNo: 3	6745				
Prep Date: 8/25/2016	Analysis D	ate: 8/	25/2016	5	SeqNo: 1	138933	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.7	62.6	124			
Surr: DNOP	4.2		5.000		83.5	70	130			
Sample ID MB-27162	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	1D: 27	162	F	RunNo: 3	6745				
Prep Date: 8/25/2016	Analysis D	ate: 8/	25/2016	\$	SeqNo: 1	138934	Units: mg/k	(g		
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	8.9		10.00		89.3	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
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Page 3 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E28

26-Aug-16

Client:

Blagg Engineering

Project:

Hughes 1E

Sample ID 5ML RB

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

LowLimit

68.3

Client ID:

PBS

Batch ID: G36759

PQL

5.0

RunNo: 36759

Prep Date:

Analysis Date: 8/25/2016

SeqNo: 1139606

Units: mg/Kg

144

Analyte Gasoline Range Organics (GRO)

ND 890

Result

1000

SPK value SPK Ref Val %REC

88.7

HighLimit

Qual

Sample ID 2.5UG GRO LCS

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

%RPD

Client ID: LCSS

Batch ID: G36759

RunNo: 36759

Prep Date:

Analyte

Surr: BFB

Analysis Date: 8/25/2016

SeqNo: 1139607

Units: mg/Kg HighLimit

%RPD **RPDLimit** Qual

RPDLimit

Gasoline Range Organics (GRO)

Result PQL SPK value SPK Ref Val 5.0 25.00 1000

104 96.5

Surr: BFB

26 960

%REC

68.3

144

80

Qualifiers:

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

Page 4 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E28

26-Aug-16

Client:

Blagg Engineering

Project:

Hughes 1E

Sample ID	5ML RB
Client ID:	PBS

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

Batch ID: B36759

Result

RunNo: 36759

%RPD

Prep Date:

Analysis Date: 8/25/2016

PQL

SeqNo: 1139612

SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg HighLimit

RPDLimit Qual

Qual

RPDLimit

Analyte Benzene Toluene Ethylbenzene

ND 0.025 ND 0.050 ND 0.050 Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.93

1.000

92.8

120 80

TestCode: EPA Method 8021B: Volatiles

Sample ID 100NG BTEX LCS Client ID:

SampType: LCS

Batch ID: B36759

RunNo: 36759

Analysis Date: 8/25/2016

SegNo: 1139613

Prep Date:	Analysis [Date: 8/	25/2016	8	SeqNo: 1	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	
Benzene	1.1	0.025	1.000	0	107	75.3	123		
Toluene	1.1	0.050	1.000	0	107	80	124		
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121		
Xylenes, Total	2.9	0.10	3.000	0	97.8	83.9	122		
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120		

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

Page 5 of 5



riau Environmental Analysis Laboratory 4901 Hawkins NE

Website: www.hallenvironmental.com

Sample Log-In Check List

Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Clie	nt Name:	BLAGG	0	Work Order Numbe	r: 160 8	E28			RcptNo:	1
Rece	elved by/date	e: \	A	08/25/1	0					
Logg	ed By:	Ashley Ga	llegos	8/25/2016 8:00:00 AN	1		A	ŕ		
Com	pleted By:	Ashley Gal	llegos	8/25/2016 8:41:12 AM	1		A	·		
Revie	ewed By:	Je 08/2	5/16				•	,		
Chai	in of Cust	tody								
1. 0	Custody seal	ls intact on sa	ample bottles?		Yes		No		Not Present 🗹	
2. 1	s Chain of C	custody comp	lete?		Yes	V	No		Not Present	
3. H	low was the	sample deliv	ered?		Cou	rier				
Log	<u>In</u>									
4. v	Was an atter	mpt made to	cool the samples?		Yes	V	No		NA 🗆	
5. V	Vere all sam	nples received	d at a temperature of	of >0° C to 6.0°C	Yes	V	No		NA 🗆	
6. 8	Sample(s) in	proper conta	tiner(s)?		Yes	\checkmark	No			
7. S	ufficient san	nple volume i	for indicated test(s)	?	Yes	V	No			
8. A	re samples	(except VOA	and ONG) properly	preserved?	Yes	✓	No			
9. W	Vas preserva	ative added to	bottles?		Yes		No	V	NA 🗆	
10.V	OA vials ha	ve zero head	space?		Yes		No		No VOA Vials	
11. V	Vere any sa	mple contains	ers received broken	?	Yes		No	~	# of preserved	
12 n		and matter base	W- I-b-I-0			-	No		bottles checked	
		ork match bo ancies on ch	ain of custody)		Yes	Y	No		for pH: (<2 or	>12 unless noted)
13. A	re matrices	correctly iden	tifled on Chain of C	sustody?	Yes	V	No		Adjusted?	
14. Is	it clear wha	at analyses w	ere requested?		Yes	V	No			8
		ing times able	a to be met? authorization.)		Yes	✓	No		Checked by:	
,										
Spec	ial Handl	ing (if app	licable)							
16. W	/as client no	otified of all dis	screpancies with th	is order?	Yes		No		NA 🗹	
	Person	Notified:		Date	-		-			
	By Who	om:		Via:	_ eMa	il 🗌 l	Phone _	Fax	☐ In Person	
	Regard							-		
	Client Ir	nstructions:								
17. A	Additional rea	marks:								
18. <u>c</u>	Cooler Infor					121				
	Cooler No	-		I Intact Seal No	Seal Da	ite	Signed B	у		
		3.5	Good Yes							

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608E26

26-Aug-16

Client:

Blagg Engineering

Project:

Hughes 1E

Sample ID MB-27168

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 27168

RunNo: 36775

Prep Date: 8/25/2016

Analysis Date: 8/25/2016

SeqNo: 1139951

Units: mg/Kg

HighLimit

RPDLimit

Qual

Qual

Analyte Chloride

Result **PQL** ND 1.5

Sample ID LCS-27168

SampType: Ics

TestCode: EPA Method 300.0: Anions

%RPD

Client ID: LCSS Batch ID: 27168

RunNo: 36775

Prep Date: 8/25/2016 Analysis Date: 8/25/2016

SeqNo: 1139952

Units: mg/Kg

Analyte

PQL

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

HighLimit LowLimit

%RPD **RPDLimit**

15.00

90

Chloride

Result 14

1.5

94.5

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608E26

26-Aug-16

Client:

Blagg Engineering

Project:	Hughes 1	_									
Sample ID	LCS-27162	SampTy	ype: LC	cs	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: 27	162	F	RunNo: 3	6745				
Prep Date:	8/25/2016	Analysis Da	ate: 8	/25/2016		SeqNo: 1	138933	Units: mg/h	K g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range (Organics (DRO)	46	10	50.00	0	92.7	62.6	124			
Surr: DNOP		4.2		5.000		83.5	70	130			
Sample ID	MB-27162	SampTy	ype: MI	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch	ID: 27	162	F	RunNo: 3	6745				
Prep Date:	8/25/2016	Analysis Da	ate: 8/	/25/2016		SeqNo: 1	138934	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range (Organics (DRO)	ND	10								
Notor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		8.9		10.00		89.3	70	130			
Sample ID	1608E24-001AMS	SampTy	/pe: M \$	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	BatchQC	Batch	ID: 27	162	F	RunNo: 3	6745				
Prep Date:	8/25/2016	Analysis Da	ate: 8/	25/2016	\$	SeqNo: 1	139346	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range C	Organics (DRO)	45	10	50.76	5.554	78.4	33.9	141			
Surr: DNOP		4.7		5.076		91.9	70	130			
Sample ID	1608E24-001AMS	SampTy	/pe: M \$	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	BatchQC	Batch	ID: 27	162	F	RunNo: 3	6745				
Prep Date:	8/25/2016	Analysis Da	ate: 8/	25/2016	5	SeqNo: 1	139347	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range C	Organics (DRO)	40	10	49.90	5.554	68.8	33.9	141	12.9	20	

4.990

Qualifiers:

Surr: DNOP

- 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

90.1

70

130

- J Analyte detected below quantitation limits
- Page 4 of 6

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E26

26-Aug-16

Client:

Blagg Engineering

Project:

Hughes 1E

Sample	ID	5ML	RB
--------	----	-----	----

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Batch ID: G36759

RunNo: 36759

PBS

Analysis Date: 8/25/2016

Units: mg/Kg

Prep Date: Analyte

Result PQL SeqNo: 1139606

HighLimit

Qual

Gasoline Range Organics (GRO) Surr: BFB

ND 5.0 890

1000

88.7

LowLimit

68.3

80

68.3

LowLimit

59.3

68.3

144

Sample ID 2.5UG GRO LCS

SampType: LCS

SPK value SPK Ref Val %REC

TestCode: EPA Method 8015D: Gasoline Range

%RPD

Client ID:

LCSS

Batch ID: G36759

5.0

RunNo: 36759

120

144

Prep Date:

Analysis Date: 8/25/2016

SeqNo: 1139607

Units: mg/Kg

Analyte Gasoline Range Organics (GRO) Result PQL

26

SPK value SPK Ref Val 25.00

%REC LowLimit 104

HighLimit

%RPD **RPDLimit** Qual

RPDLimit

Surr: BFB

960

1000

96.5

TestCode: EPA Method 8015D: Gasoline Range

Sample ID 1608E26-001AMS Client ID:

SampType: MS TH1-8.5' (West Side)

Batch ID: G36759

SPK value

17.30

692.0

RunNo: 36759

Prep Date:

Analysis Date: 8/25/2016

Result

17

660

SeqNo: 1139608 %REC

98.6

95.4

Units: mg/Kg HighLimit

RPDLimit %RPD Qual

Analyte Gasoline Range Organics (GRO) Surr: BFB

TestCode: EPA Method 8015D: Gasoline Range

Sample ID 1608E26-001AMSD

SampType: MSD

PQL

PQL

3.5

RunNo: 36759

143

144

Client ID: Prep Date:

TH1-8.5' (West Side)

Result

16

650

Batch ID: G36759

Analyte

Analysis Date: 8/25/2016

SPK Ref Val

0

SeqNo: 1139609

Units: mg/Kg HighLimit

%RPD

RPDLimit Qual 20

0

Gasoline Range Organics (GRO) Surr: BFB

3.5 17.30 692.0

SPK value SPK Ref Val %REC 0

93.1 93.9

59.3 68.3

LowLimit

143 144

0

5.76

Qualifiers:

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

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1608E26

26-Aug-16

Client: H

Blagg Engineering

Project:

Hughes 1E

Sample ID 5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batc	h ID: B3	6759	RunNo: 36759						
Prep Date:	Analysis Date: 8/25/2016			SeqNo: 1139612			Units: mg/k			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	80	120			

Sample ID 100NG BTEX L	CS Samp	Type: LC	S	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Bato	h ID: B3	6759	F	RunNo: 3	6759				
Prep Date:	Analysis I	Date: 8/	8/25/2016 SeqNo: 1139613			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	107	75.3	123			
Toluene	1.1	0.050	1.000	0	107	80	124			
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	97.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID 1608E26-002AMS SampType: MS TestCode: EPA Method 8021B: Volatiles								tiles		
Client ID: TH2-9' (South S	ID: TH2-9' (South Side) Batch ID: B36759 RunNo: 36759									
Prep Date:	25/2016	SeqNo: 1139614 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.019	0.7524	0	87.5	71.5	122			
Toluene	0.62	0.038	0.7524	0	82.1	71.2	123			
Ethylbenzene	0.63	0.038	0.7524	0	84.1	75.2	130			
Xylenes, Total	1.9	0.075	2.257	0	83.6	72.4	131			
Surr: 4-Bromofluorobenzene	0.72		0.7524		95.8	80	120			

Sample ID 1608E26-002AN	ISD Samp	Гуре: М	SD	TestCode: EPA Method 8021B: Volatiles						
Client ID: TH2-9' (South S	Bide) Batcl	h ID: B3	6759	F	RunNo: 3	6759				
Prep Date:	Analysis Date: 8/25/2016			SeqNo: 1139615			Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.019	0.7524	0	85.8	71.5	122	1.90	20	
Toluene	0.62	0.038	0.7524	0	83.0	71.2	123	1.05	20	
Ethylbenzene	0.62	0.038	0.7524	0	81.8	75.2	130	2.76	20	
Xylenes, Total	1.8	0.075	2.257	0	81.8	72.4	131	2.20	20	
Surr: 4-Bromofluorobenzene	0.73		0.7524		96.4	80	120	0	0	

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

Page 6 of 6



11an 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	er: 1608E26		RcptNo:	1
Received by/date: 08 25	114			
Logged By: Ashley Gallegos 8/25/2016 8:00:00 Al	М	A		
Completed By: Ashley Gallegos 8/25/2016 8:35:24 Al	И	A		
Reviewed By: 4 08/25/16		Q		
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			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	NA 🗌	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA □	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗸	No 🗆		
9. Was preservative added to bottles?	Yes	No 🗸	NA 🗌	
10.VOA vials have zero headspace?	Yes	No 🗆	No VOA Vials	
11. Were any sample containers received broken?	Yes 🗆	No 🗹	# of preserved	
40 -			bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	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 🗹	1
Person Notified: Date				
By Whom: Via:	eMail I	Phone Fax	☐ In Person	
Regarding:				
Client Instructions:				
17. Additional remarks:				
18. Cooler Information				
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date	Signed By		
1 3.5 Good Yes				