### State of New Mexico Energy Minerals and Natural Resources

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

**Release Notification and Corrective Action** 

Form C-141 Revised April 3, 2017 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

						<b>OPERA</b>	ΓOR		Initia	l Report 🔳 Fi	inal Report
Name of Co	ompany BP	America Produc	tion Compa	ny	(	Contact Erin (	Garifalos				
Address 200	Energy Cour	t, Farmington, N	M 87401		1	Telephone N	Jo. (832) 609-7048				
Facility Nat	me GCU 155				]	Facility Typ	e: Natural Gas Well	1			
Surface Ow	ner : Federa			Mineral C	)wner: F	ederal			API No.	3004507269	
				LOCA	TION	OF REI	EASE				
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	West Line	County	
N	23	28N	13W	990	Sou	ith	1,700	We	st	San	Juan
			Latitud	le 36.64344	Lo	ongitude -1	08.19216	NAD	83		
				NAT	URE	OF RELI	EASE				
Type of Rele	ase:: none	)				Volume of	Release: : unkno	own	Volume R	ecovered:: N/A	
Source of Re	lease: belo	w grade ta	nk - 95	bbl		Date and H	our of Occurrenc	e:	Date and H	Hour of Discovery:	
Was Immedi	ate Notice (	Given?	Yes 🗸	No 🗌 Not Ro	equired	If YES, To	Whom?				
By Whom?						Date and H	our				
Was a Water	course Read	ched?	Vac 🗸	No		If YES, Vo	lume Impacting t	he Wate	ercourse.		
			ies 🗸	NO				0	IL CONC	DIV DICT 2	
Describe Cat	use of Probl	em and Reme	dial Actio	n Taken.* Sampli and TP 5 feet b signific	ng of the H below pelow gro ant threa	beneath BGT closure bund surface t to surface of	the BGT was don standards. Chlor with an estimated r groundwater. Fi	ne durir ride con d depth ield rep	DEC g removal. centrations to groundwa orts and lab	2 2 2017 Soil analysis resulted were elevated but at ther of >100' the level pratory results are att	for BTEX a depth of s pose no iached.
Describe Are	a Affected	and Cleanup A	Action Tak	<sup>ven.*</sup> No actio remedia	n neco I actio	essary. F n is requ	inal laborato red.	ory ar	nalysis d	etermined no	
I hereby certi regulations a public health should their o or the enviro federal, state	ify that the i ll operators or the envi operations h nment. In a , or local lay	information gi are required to ronment. The ave failed to a ddition, NMO ws and/or regu	ven above o report ar acceptanc dequately OCD accep llations.	is true and comp ad/or file certain r ee of a C-141 repo investigate and r tance of a C-141	lete to the elease not ort by the emediate report do	e best of my otifications ar NMOCD ma contaminations bes not relieve	knowledge and un d perform correct arked as "Final Re on that pose a three e the operator of r	nderstar tive act eport" d eat to gr responsi	nd that pursu ions for relea oes not relie ound water, bility for co	ant to NMOCD rules ases which may enda we the operator of lia surface water, human mpliance with any ot	s and nger bility n health her
X Signature:	orin g	orifalc	A			Approved by	OIL CONS	SERV			
Printed Name	e: Erin G	arifalos					C	-	6-	$\sim$	
Title: Field	d Envir	onmenta	l Coo	rdinator	F	Approval Dat	12/26/1	7	Expiration D	ate:	
E-mail Addre	ess: erin.	garifalos	@bp.	com	(	Conditions of	Approval:			Attached	
Date: Decen	nber 19, 20	017	Phone:	(832) 609-7048							

NVF173603516

\* Attach Additional Sheets If Necessary

BP	BLAGG E	NGINEERING, INC.	412	API#: 3004507269
	P.O. BOA 87, B	05) 632-1199	413	TANK ID (if applicble):A
FIELD REPORT:	(circle one): BGT CONFIRMATION	/ RELEASE INVESTIGATION / OTHER:		PAGE #:1 of1
SITE INFORMATION	I: SITE NAME: GCU #	155		DATE STARTED: 10/25/17
QUAD/UNIT: N SEC: 23 TWP:	28N RNG: 13W PM:	NM CNTY: SJ ST	NM	DATE FINISHED:
1/4 -1/4/FOOTAGE: 990'S / 1,70	O'W SE/SW LEASE	TYPE: FEDERAL STATE / FEE	INDIAN	
LEASE #: SF077966	PROD. FORMATION: DK C	STRIKE ONTRACTOR: BP - S. BEEBE		SPECIALIST(S): NJV
<b>REFERENCE POINT</b>	C: WELL HEAD (W.H.) GPS	COORD.: 36.64321 X 1	08.19232	GL ELEV.: 6.093'
1) 95 BGT (SW/DB) - A	GPS COORD.: 36	6.64344 X 108.19216	DISTANCE/BEAF	RING FROM W.H.: 96', N30.5E
2)	GPS COORD .:		DISTANCE/BEAF	RING FROM W.H.:
3)	GPS COORD .:		DISTANCE/BEAF	RING FROM W.H.:
4)	GPS COORD.:		DISTANCE/BEAF	RING FROM W.H.:
SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # C	DR LAB USED: HALL		OVM READING
1) SAMPLE ID: 5PC - TB @ 5' (	95) - A SAMPLE DATE: 10/2	5/17 SAMPLE TIME: 0840 LAB ANA	LYSIS: 801	5B/8021B/300.0 (Cl) 0.0
2) SAMPLE ID: GRAB @ 5' (9	5) - A SAMPLE DATE: 10/2	5/17 SAMPLE TIME: 0842 LAB ANA	LYSIS: 801	5B/8021B/300.0 (CI) 0.0
3) SAMPLE ID: 4) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME: LAB ANA SAMPLE TIME: LAB ANA	LYSIS:	
5) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME: LAB ANA		
SOIL DESCRIPTION	SOIL TYPE SAND SILTY SAND		IFR	
SOIL COLOR: MODE	RATE BROWN	PLASTICITY (CLAYS): NON PLASTIC / SLIGH		OHESIVE MEDIUM PLASTIC / HIGHLY PLASTIC
COHESION (ALL OTHERS): NON COHESIVE SLIGHT	Y COHESIVE COHESIVE / HIGHLY COHESIVE	DENSITY (COHESIVE CLAYS & SILTS):	SOFT FIRM	STIFF / VERY STIFF / HARD
CONSISTENCY (NON COHESIVE SOILS): LO	DOSE FIRM DENSE / VERY DENSE	HC ODOR DETECTED: YES NO EXPLAI	NATION -	
SAMPLE TYPE: GRAB COMPOSITE -	# OF PTS. 5			
DISCOLORATION/STAINING OBSERVED: YES	VO EXPLANATION -	ANTALLAS DISPERTING WE INESS. TEX		
SITE OBSERVATION	IS: LOST INTEGRITY OF EQUIPMENT	YES NO EXPLANATION -		
APPARENT EVIDENCE OF A RELEASE OBSERVE	D AND/OR OCCURRED : YES NO EXPL	ANATION:		
EQUIPMENT SET OVER RECLAIMED AREA: OTHER: TANK ID: A CONSTRUCTED OF	YES NO EXPLANATION -	ABANDONED (P&A), NMOCD OF		RESENT TO WITNESS CONFIRM -
ATION SAMPLING. GRAB SAMPLE A	REA WITHIN TANK ID: A HAD SL	IGHTLY DARKER THAN REST OF B	GT FOOTPRI	NT.
EXCAVATION DIMENSION ESTIMATION	. <u>NA</u> ft. X <u>NA</u>	_ ft. X <u>NA</u> ft. EXC	AVATION EST	IMATION (Cubic Yards) : NA
	IEAREST WATER SOURCE: >1,000	NEAREST SURFACE WATER: <1,	NMOC	D TPH CLOSURE STD: ppm
SHESKEICH	BGT Located : off on sit	PLOT PLAN circle: a	ttached OVM	CALIB. READ. = 100.0 ppm RF =1.00
				CALIB. GAS = 100 ppm
	DEDM			: <u>9:00</u> (am/pm DAIE: <u>10/25/17</u>
	FENCE	(95)_A		MISCELL. NOTES
		PBGTL	P	0: <b>4300858307</b>
		B.G.		FE #: X7-0071L-E:RESI
				0: 190040007679
			G	L#: 1432/1
				CD Appr. date(s): 05/10/11
			Tan	k OVM = Organic Vapor Meter
	/ <b>TO</b>		A	BGT Sidewalls Visible: Y /(N)
	P&A MARKER	X - 9	PD	BGT Sidewalls Visible: Y / N
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION	ON DEPRESSION; B.G. = BELOW GRADE; B = B	ELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = W	ELL HEAD;	BGT Sidewalls Visible: Y / N
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BEL APPLICABLE OR NOT AVAILABLE; SW - SINGL	.OW-GRADE TANK LOCATION; SPD = SAMPLE F E WALL; DW - DOUBLE WALL; SB - SINGLE BOT	POINT DESIGNATION; R.W. = RETAINING WALL; N/ TOM; DB - DOUBLE BOTTOM.	A-NOT M	agnetic declination: 10° E
NOTES: GOOGLE EARTH IMAG	ERY DATE: 3/15/2015.	ONSITE: 10/25/17		

revised: 11/26/13

Hall Environmental Analys	is Labora	atory, Inc.			Lab Order <b>1710D76</b> Date Reported: <b>10/31/2</b>	017
CLIENT: Blagg Engineering		(	lient Samp	le ID: 5P	С-ТВ @ 5' (95)-А	
Project: GCU 155			Collection	Date: 10/	25/2017 8:40:00 AM	
Lab ID: 1710D76-001	Matrix:	MEOH (SOIL)	Received	<b>Date:</b> 10/	/26/2017 8:00:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	69	30	mg/Kg	20	10/26/2017 1:38:02 PM	34664
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/26/2017 11:21:16 AM	1 34652
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/26/2017 11:21:16 AM	/ 34652
Surr: DNOP	105	70-130	%Rec	1	10/26/2017 11:21:16 AM	1 34652
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	10/26/2017 11:06:06 AM	/ G46673
Surr: BFB	116	15-316	%Rec	1	10/26/2017 11:06:06 AM	A G46673
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	10/26/2017 11:06:06 AM	A B46673
Toluene	ND	0.039	mg/Kg	1	10/26/2017 11:06:06 AM	A B46673
Ethylbenzene	ND	0.039	mg/Kg	1	10/26/2017 11:06:06 AM	A B46673
Xylenes, Total	ND	0.078	mg/Kg	1	10/26/2017 11:06:06 AM	AB46673
Surr: 4-Bromofluorobenzene	116	80-120	%Rec	1	10/26/2017 11:06:06 AM	A B46673

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

Oua	lifiers:
×	

\*

\* \*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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 Page 1 of 6

**Analytical Report** 

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

Anal	ytical	Report	

#### Lab Order 1710D77

Date Reported: 10/31/2017

### Hall Environmental Analysis Laboratory, Inc.

J 8

\*

Analyses		Result	PQL Qual	Units	DF Date Analyzed	]
Lab ID:	1710D77-001	Matrix:	MEOH (SOIL)	Received	d Date: 10/26/2017 8:00:00 AM	
<b>Project:</b>	GCU 155			Collection	n Date: 10/25/2017 8:42:00 AM	
CLIENT:	Blagg Engineering		0	lient Sam	ple ID: Grab @ 5' (95)-A	

Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	450	30	mg/Kg	20	10/26/2017 2:27:42 PN	34664
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/26/2017 11:03:39 A	M 34652
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/26/2017 11:03:39 A	M 34652
Surr: DNOP	82.7	70-130	%Rec	1	10/26/2017 11:03:39 A	M 34652
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/26/2017 11:53:28 A	M G46673
Surr: BFB	114	15-316	%Rec	1	10/26/2017 11:53:28 Al	M G46673
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	10/26/2017 11:53:28 AI	M B46673
Toluene	ND	0.046	mg/Kg	1	10/26/2017 11:53:28 AI	M B46673
Ethylbenzene	ND	0.046	mg/Kg	1	10/26/2017 11:53:28 AI	M B46673
Xylenes, Total	ND	0.091	mg/Kg	1	10/26/2017 11:53:28 AI	M B46673
Surr: 4-Bromofluorobenzene	112	80-120	%Rec	1	10/26/2017 11:53:28 AI	M B46673

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	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Dag
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 ag
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	

- S % Recovery outside of range due to dilution or matrix
- ge 1 of 5
- W Sample container temperature is out of limit as specified

Client:	BLAG	g Engr.	/ BP AMERICA	Standard Project Name	Rush_	DAY				H			EI YS		IF 5 L		NI BO	RA	TO	RY	
Mailing A	ddress:	P.O. 80	(87		GCU # 15	5	1	49	01 H	awki	ns N	IE -	Alb	udu	enu	ue. N	IM 8	7109	in-		
	-	BLOOM	TELD, NM 87413	Project #:				Те	1. 50	5-34	5-39	175	F	ax	505	345	-410	17	P.		
Phone #:	integer at SS	(505) 63	2-1199									A	naly	/sis	Rec	ques	st				
email or F	Fax#:			Project Manag	ger.			1						-			1.00	2		11	
QA/QC Pa	ckage: ard		Level 4 (Full Validation)		NELSON VE	ELEZ	(218)	(kjuo	MRO)			(5)		04,504	PCB's			er - 300.			
Accreditat	tion:			Sampler:	NELSON VE	LEZ 97 Y	5 (8)	Gas	102	-	=	SIM		O2,P	1082			wat		mple	
	2	C Other		On Ice:	X Yes	D No		Hal	0/0	418.	20	3270	5	O3,N	3/5		(M)	0.00		e 53	1
EDD (1	Type)			Sample Temp	erature: 312 7	0-1=3-4	E	+ 30	GRC	pot	pot	or	etals	CI,N	cide	(M	27-10	11-31	a	osit	N N
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MH	BTEX + MTE	TPH 80158	TPH (Meth	EDB (Meth	PAH (8310	RCRA 8 M	Anions (F.	8081 Pest	8260B (VC	8270 (Sem	Chloride (so	Grab samp	5 pt. comp	att Duttla
10/2/17	0840	SOIL	5PC-TB@ 5 '(95)-A	4 02 1	Cool	-001	٧		۷							-		V		۷	
n/s-lin	-0-5	50IL	505 TD - 1051 0	100.1	Coal	-052	¥		*									4	+	-	
																			-		
			1																	F	+
-														11						F	-
				1				-				1		10					-	$\vdash$	t
Date: 10/25/17 Date:	Time:  857 Time:	Refinquishe	g by: ce /f g by:	Received by	Ja	Date Time	Rem	arks		PLEAS	G INF	ORM.	ATIO	N SHO	EBE	BE FO	DRWA	RDED	ROM BP	IENG	<u>л.</u>
help	1952	1 n	Vat 1 laoL	NE	- [6]	26/17 0800															

Client:	BLAG	ig Engr.	/ BP AMERICA	Standard Project Name	Rush_	DAY				H A		LL AL w.ha	YS	NV SIS	/IF 5 L	RO Al	BO	RA	TO	RY
Mailing A	ddress:	P.O. 80	( 87		GCU # 15	5		49	01 H	awk	ins l	NE -	Alt	มตาม	eral	ue. M	NM 8	109		
- mg		BLOOM	IELD, NM 87413	Project #:	1296 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	Te	1 50	5.34	15-3	975		Fax	505	-345	-410	17		
Dhone #		(505) 63	2-1199					10	n be			A	nal	vsis	Ret	ues	st			
email or F	ax#:	10000		Project Manac	per				-		-			1		7	-			1
QA/QC Pa	ckage:	Real Property lines				1.6.	_	-	5				1	(NOS	3'5			00.1		
Stand	ard		Level 4 (Full Validation)		NELSON VE	LEZ	218	Vuo	MR			2)		041	PCE			Cr 3		
Accreditat	tion:			Sampler:	NELSON VE	LEZ NUT	-8	Gas	101	=	1)	SIM		02,P	082			wat		mple
	>	D Other		On Ice:	X Yes	D No		Ha	0/1	118.	04.	270		N'EC	5/8	1	A	0.0		e sa
EDD (1	Type)			Sample Temp	erature: 32	+0.2=5.4		+=	GRC	po	po	io.	tals	I'NG	cide	R	1-VO	1-30	e	osit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX +	<b>BTEX + MTB</b>	FPH 80158	<b>TPH (Meth</b>	EDB (Meth	PAH (8310	RCRA 8 Me	Anions (F,C	8081 Pesti	3260B (VO	8270 (Sem	Chloride (so	Srab samp	# pt. comp
10/25/17	054z	Sail	GRAB @ 5 (95)-A	402 1	COOL	-001	$\checkmark$		1			-						V	V	
	n																			
	1								4											
	1.1												1		-	-				
Date: 19/25/17 Date:	Time:	Relinquishe	doy.	Received by:	Jon 10	Date Time 125/17 1807 Date Time	Kem	ərks		PLEAS	IG IN	NTAC	TSAB	REIN	SULD SEE 97	EF	DRWA	RDED F	S gv	IF N

-

**Client:** Blagg Engineering **Project:** GCU 155

Sample ID MB-34664	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 34664	RunNo: 46677		
Prep Date: 10/26/2017	Analysis Date: 10/26/2017	SeqNo: 1488010	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-34664	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-34664 Client ID: LCSS	SampType: Ics Batch ID: 34664	TestCode: EPA Method RunNo: 46677	300.0: Anions	
Sample ID LCS-34664 Client ID: LCSS Prep Date: 10/26/2017	SampType: Ics Batch ID: 34664 Analysis Date: 10/26/2017	TestCode: EPA Method RunNo: 46677 SeqNo: 1488011	300.0: Anions Units: mg/Kg	
Sample ID LCS-34664 Client ID: LCSS Prep Date: 10/26/2017 Analyte	SampType: Ics Batch ID: 34664 Analysis Date: 10/26/2017 Result PQL SPK value	TestCode: EPA Method RunNo: 46677 SeqNo: 1488011 SPK Ref Val %REC LowLimit	<b>300.0: Anions</b> Units: <b>mg/Kg</b> HighLimit %RPD	RPDLimit Qual

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % 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
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Page 3 of 6

WO#: 1710D76

31-Oct-17

Client:Blagg EngineeringProject:GCU 155

Sample ID LCS-34652	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	n ID: 340	652	F	RunNo: 4	6661				
Prep Date: 10/26/2017	Analysis D	ate: 10	)/26/2017	S	SeqNo: 1	486701	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.7	73.2	114			
Surr: DNOP	3.8		5.000		76.8	70	130			
Sample ID MB-34652	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Sample ID MB-34652 Client ID: PBS	SampT Batch	ype: ME	3LK 652	Tes F	tCode: El RunNo: 4	PA Method 6661	8015M/D: Di	esel Range	e Organics	
Sample ID     MB-34652       Client ID:     PBS       Prep Date:     10/26/2017	SampT Batch Analysis D	ype: ME 1 ID: 346 ate: 10	BLK 652 0/26/2017	Tes R S	tCode: El RunNo: 4 SeqNo: 1	PA Method 6661 486702	8015M/D: Di Units: mg/F	esel Rango (g	e Organics	
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte	SampT Batch Analysis D Result	ÿpe: ME n ID: 346 Date: 10 PQL	BLK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/P HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte Diesel Range Organics (DRO)	SampT Batch Analysis D Result ND	ype: ME 1D: 346 Date: 10 PQL 10	BLK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/H HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampT Batch Analysis D Result ND ND	ype: ME 1D: 346 pate: 10 PQL 10 50	BLK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rango (g %RPD	e Organics	Qual

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 Quanitative 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

WO#: 1710D76

31-Oct-17

Page 4 of 6

WO#: 1710D76

Page 5 of 6

31-Oct-17

Client: Blagg Engineering

Project: GCU 15.	5									
Sample ID RB	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch	h ID: G4	6673	F	RunNo: 4	6673				
Prep Date:	Analysis D	Date: 10	0/26/2017	S	SeqNo: 1	487403	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1200		1000		116	15	316			
Sample ID 2.5UG GRO LCS	SampT	Type: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch	h ID: G4	6673	F	RunNo: 4	6673				
Prep Date:	Analysis D	Date: 10	0/26/2017	S	SeqNo: 1	487405	Units: mg/k	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	75.9	131			
Surr: BFB	1300		1000		125	15	316			

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 Quanitative 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

WO#: 1710D76 31-Oct-17

Hall	Environmental	Analysis	Laboratory,	Inc.

Client: Blagg Engineering Project: GCU 155

Sample ID RB	Samp	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batc	h ID: B4	6673	RunNo: 46673						
Prep Date:	Analysis [	Date: 10	0/26/2017	S	SeqNo: 1	487457	Units: mg/H	٢g		
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		110	80	120			
	Comm	Europe I O	0	Tee			and D. Male	411		
Sample ID 100NG BIEX LCS	s Samp	Type: LC	5	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: B4	6673	F	RunNo: 4	6673				
Prep Date:	Analysis [	Date: 10	)/26/2017	5	SeqNo: 1	487459	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	77.3	128			
Toluene	0.97	0.050	1.000	0	96.7	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	100	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative 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

Page 6 of 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albuc TEL: 505-345-3975 I Website: www.hal	Analysis Laboratory 4901 Hawkins NE querque, NM 87109 FAX: 505-345-4107 lenvironmental.com	Sam	ple Log-In Check List
Client Name: BLAGG	Work Order Number:	1710D76		RcptNo: 1
Received By: Richie Eriacho Completed By: Ashley Gallegos Reviewed By:	10/26/2017 8:00:00 AM 10/26/2017 9:02:39 AM [0[26]]7	/ \$	2-2	
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	e 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) prope	rly 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 brok	en?	Yes	No 🗹	# of processed
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain o	f 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		ti in its a did over in stickelly	
By Whom:	Via:	eMail Phone	e 🗌 Fax	In Person
Regarding:	Sanara maalaa mada asang sang sang sa asar sa asar sa ka ka sa ka ka sa	al landes of features can all and the second		
Client Instructions:	######################################	a. Indiatan ( Ala Berris II ( Briller, A 1947)	5443.475 43286,1181 ,441.09	ille de la composition des constantes anna esta constantes de la constante de la constante de la constante de l
17. Additional remarks:				· · · · · · · · · · · · · · · · · · ·
18. <u>Cooler Information</u> <u>Cooler No</u> Temp °C Condition S 1 3.4 Good Ye	eal Intact   Seal No   S s	eal Date Sign	ned By	
Page 1 of 1			<b></b>	<u> </u>

Client: Blagg Engineering Project: GCU 155

Sample ID MB-34664	SampType: mblk		TestCode: EPA Method			
Client ID: PBS	Batch ID: 3466	4	RunNo: 46677			
Prep Date: 10/26/2017	Analysis Date: 10/2	6/2017	SeqNo: 1488010	Units: mg/Kg		
Analyte	Result PQL S	PK value SPK Ref	Val %REC LowLimit	HighLimit %RP	D RPDLimit	Qual
Chloride	ND 1.5					
Sample ID LCS-34664	SampType: Ics		TestCode: EPA Method	300.0: Anions		
Sample ID LCS-34664 Client ID: LCSS	SampType: Ics Batch ID: 3466	4	TestCode: EPA Method RunNo: 46677	300.0: Anions		
Sample ID LCS-34664 Client ID: LCSS Prep Date: 10/26/2017	SampType: Ics Batch ID: 3466 Analysis Date: 10/2	4 6/2017	TestCode: EPA Method RunNo: 46677 SeqNo: 1488011	300.0: Anions Units: mg/Kg		
Sample ID LCS-34664 Client ID: LCSS Prep Date: 10/26/2017 Analyte	SampType: Ics Batch ID: 3466 Analysis Date: 10/2 Result PQL S	4 6/2017 PK value SPK Ref	TestCode: EPA Method RunNo: 46677 SeqNo: 1488011 Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RP	D RPDLimit	Qual

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 Quanitative 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

Page 2 of 5

WO#: 1710D77

31-Oct-17

## QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

**Client: Blagg Engineering** GCU 155 **Project:** 

Sample ID LCS-34652	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch	n ID: 34	652	RunNo: 46661						
Prep Date: 10/26/2017	Analysis D	ate: 10	)/26/2017	S	SeqNo: 1	486701	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.7	73.2	114			
Surr: DNOP	3.8		5.000		76.8	70	130			
Sample ID MB-34652	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-34652 Client ID: PBS	SampT Batch	ype: ME	3LK 652	Tes F	tCode: El RunNo: 4	PA Method 6661	8015M/D: Di	esel Rang	e Organics	
Sample ID     MB-34652       Client ID:     PBS       Prep Date:     10/26/2017	SampT Batch Analysis D	ype: ME 1 ID: 340 ate: 10	3LK 652 0/26/2017	Tes R S	tCode: El RunNo: 4 SeqNo: 1	PA Method 6661 486702	8015M/D: Di Units: mg/H	esel Range	e Organics	
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte	SampT Batch Analysis D Result	ype: ME 1D: 340 ate: 10 PQL	BLK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rango (g %RPD	e Organics	Qual
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte Diesel Range Organics (DRO)	SampT Batch Analysis D Result ND	ype: ME 1D: 340 Date: 10 PQL 10	3LK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/H HighLimit	esel Rango (g %RPD	e Organics	Qual
Sample ID MB-34652 Client ID: PBS Prep Date: 10/26/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampT Batch Analysis D Result ND ND	ype: ME 1D: 34 pate: 10 PQL 10 50	3LK 652 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6661 486702 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rang (g %RPD	e Organics	Qual

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % 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
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 3 of 5

WO#:

31-Oct-17

WO#: 1710D77 31-Oct-17

Client:	Blagg En	gineering									
Project:	GCU 155	5									
Sample ID RB		Samp	Гуре: МВ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: PBS		Batc	h ID: G4	6673	F	RunNo: 4	6673				
Prep Date:		Analysis E	Date: 10	0/26/2017	S	SeqNo: 1	487403	Units: mg/k	۲g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Orga	anics (GRO)	ND	5.0								
Surr: BFB		1200		1000		116	15	316			
Sample ID 2.5U	G GRO LCS	SampT	Гуре: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCS	s	Batc	h ID: G4	6673	F	RunNo: 4	6673				
Prep Date:		Analysis D	Date: 10	)/26/2017	5	SeqNo: 1	487405	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Orga	anics (GRO)	26	5.0	25.00	0	105	75.9	131			
Surr: BFB		1300		1000		125	15	316			

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 Quanitative 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

Page 4 of 5

Client: Blagg Engineering Project: GCU 155

Sample ID RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batc	h ID: B4	6673	RunNo: 46673						
Prep Date:	Analysis [	Date: 10	0/26/2017	5	SeqNo: 1	487457	Units: mg/k	g		
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		110	80	120			
Sample ID 100NG BTEX LCS	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Sample ID 100NG BTEX LCS Client ID: LCSS	Samp Batc	Type: LC h ID: B4	S 6673	Tes F	tCode: El RunNo: 4	PA Method 6673	8021B: Volat	iles		
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date:	Samp Batc Analysis [	Гуре: LC h ID: B4 Date: 10	S 6673 0/26/2017	Tes F S	tCode: El RunNo: 4 GeqNo: 1	PA Method 6673 487459	8021B: Volat	iles g		
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date: Analyte	Samp Batc Analysis [ Result	Type: LC h ID: B4 Date: 10 PQL	S 6673 0/26/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 6673 487459 LowLimit	8021B: Volat Units: mg/K HighLimit	iles g %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date: Analyte Benzene	Samp Batc Analysis D Result 0.97	Type: LC h ID: B4 Date: 10 PQL 0.025	S 6673 0/26/2017 SPK value 1.000	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.4	PA Method 6673 487459 LowLimit 77.3	8021B: Volat Units: mg/K HighLimit 128	iles Sg %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date: Analyte Benzene Toluene	Samp Batc Analysis [ Result 0.97 0.97	Type: LC h ID: B4 Date: 10 PQL 0.025 0.050	S 6673 0/26/2017 SPK value 1.000 1.000	Tes F S SPK Ref Val 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.4 96.7	PA Method 6673 487459 LowLimit 77.3 79.2	8021B: Volat Units: mg/K HighLimit 128 125	illes g %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date: Analyte Benzene Toluene Ethylbenzene	S Samp Batc Analysis I Result 0.97 0.97 0.97	Type: LC h ID: B4 Date: 10 PQL 0.025 0.050 0.050	S 6673 0/26/2017 SPK value 1.000 1.000 1.000	Tes F S SPK Ref Val 0 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.4 96.7 96.9	PA Method 6673 487459 LowLimit 77.3 79.2 80.7	8021B: Volat Units: mg/K HighLimit 128 125 127	illes (g %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSS Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	S Samp Batcl Analysis I Result 0.97 0.97 0.97 3.0	Type: LC h ID: B4 Date: 10 PQL 0.025 0.050 0.050 0.10	S 6673 0/26/2017 SPK value 1.000 1.000 1.000 3.000	Tes F SPK Ref Val 0 0 0 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 97.4 96.7 96.9 100	PA Method 6673 487459 LowLimit 77.3 79.2 80.7 81.6	8021B: Volat Units: mg/K HighLimit 128 125 127 129	illes g %RPD	RPDLimit	Qual

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 Quanitative 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

Page 5 of 5

WO#: 1710D77 31-Oct-17

ANALYSIS LABORATORY	ilbuq 761: 505-345-3973 † Websile www.haili	4961 Hawkins NE werque, NM 87105 AS- 305-345-4103 environmental con	Sam	ple Log-In Ch	ieck List
Client Name: BLAGG	Work Order Number:	1710D77		ReptNo:	t
Received By Richle Erlacho 1	0/26/2017 8:00:00 AM	,	20 2		
Completed By: Ashley Gallegos 1 Reviewed By:	0/26/2017 9:07:09 AM 0/26//7		AJ		
Chain of Custody					
"1 Custody seals infact on sample bottles?		Yes []	No 🗌	Not Present	
2. Is Chain of Custody complete?		Yes M	No 🗆	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4 Was an altempt made to cool the samples?		Yes 🕅	No LL	NAE	
5. Were all samples received at a temperature of	f >0° C to 6.0°C	Yes 🗹	No 🗆		
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 DNG) properly	preserved?	Yes 🖌	No 🗌		
9. Was preservative added to bottles?		Yes 🗍	Na 🗹	NA 🗌	
10.VCA vials have zero headspace?		Yes 🗆	No 🗌	No VOA Vials 🗹	
11, Were any semple containers received broken	2	Yes 🗐	No 🗹	# of preserved	and the strength of the p
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	No 🗌	for pH. (<2 or	>12 unless not
13. Are matrices correctly identified on Chain of C	ustody?	Yes M	No 🗌	Adjusted?	
1.4. 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 thi	s order?	Yes	No 🗍	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail 🔲 Pho	ne 🗌 Fax	In Person	
Regarding:					
Client Instructions:					
17. Additional remarks:					
18. Cooler Information Cooler No Temp C Condition Sea 1 3.4 Good Yes	Intact Seal No S	eal Dale S	gned By		
a law Good Tes					

( · · ·

