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 W 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.

			Rel	ease Notifi	catio	n and Co	orrective A	ction				
						0	PERATOR		🗌 Ini	tial Report	\boxtimes	Final Report
Name of Co	ompany: B	P	8			Contact: Ste	eve Moskal		5.2			
Address: 20	0 Energy	Court, Farmi	ington, N	M 87401		Telephone 1	No.: 505-326-94	197				
Facility Nat	me: Federa	al Gas Com I	N 001			Facility Type: Natural Gas well						
Surface Ow	mer: Feder	ral		Mineral	Owner:	Federal			APIN	30045255	544	
Surface of				TOG								
TI-14 T attan	Castian	Tanatia	Denes	LOC	ATIO	N OF RE	LEASE	E act/W	ant Line	Country C	Inc.	
B	14	30N	11W	1.090	North	South Line	1.640	East	est Line	County: Sa	in Juan	4
		Latitu	1de_ <u>36.</u>	81646° NAT	ΓURE	_Longitud	e <u>-107.95708°</u> E ASE				-	
Type of Rele	ase: Oil/con	ndensate				Volume of	Release: unknow	vn	Volume	Recovered: n	one	
Source of Release: Failed integrity of production tank flow line			Date and H	lour of Occurrent	ce:	Date and	Hour of Dis	covery	: Confirmed			
			Unknown September October				er October 4,	2016;	9:00 AM			
Was Immediate Notice Given?					Required	If YES, To	Whom?					
By Whom? Steve Moskal				Date and H	lour:			DIL CONS	DIV	DIST. 3		
Was a Watercourse Reached?				If YES, Vo	lume Impacting	the Water	course.					
			Yes 🛛	No		1				DEC	022	2016
If a Watercou	urse was Im	pacted, Descr	ibe Fully.	k -			12 T		x			
Describe Cau revealed the following the Describe Are through the s deep. The to results of the	use of Probl tank had an e spill and re a Affected oil, reachin tal volume field report	em and Reme integrity failu elease guidelin and Cleanup <i>A</i> g a depth of ap excavated was t.	dial Action re of a flo nes. Action Tak pproximat s approxim	n Taken.* While w line that likely cen.* The release ely 16' with little nately 192 cubic	removin occurred was con e lateral n yards of	g a productio d during the ta tained to the novement. T soil. Clean so	n tank for replace ank move. The ta secondary contain otal excavation d oil was used to ba	ment, star ank releas nment and limension ackfill the	ined soil e was ren l has appe s measure excavatio	was noted. In nediated via of eared to have ed approximation. Attached	travell travell tely 18 are la	ation l haul ed vertically 3'x18'x16' boratory
I hereby certi- regulations a public health should their o or the environ federal, state,	ify that the ll operators or the envi operations h nment. In a , or local lay	information gi are required t ronment. The have failed to a uddition, NMC ws and/or regu	ven above o report ar acceptance adequately OCD accept alations.	is true and comp id/or file certain the of a C-141 rep investigate and it tance of a C-141	plete to the release n ort by the remediate report d	he best of my otifications an e NMOCD m e contaminati oes not reliev	knowledge and u ad perform correc arked as "Final R on that pose a thr e the operator of	inderstand ctive actio eport" do eat to gro responsib	that purs ns for rel es not rel und wate ility for c	suant to NMC eases which ieve the oper r, surface wa ompliance w	OCD ru may en ator of ter, hu ith any	iles and idanger 'liability man health y other
Signature:	alean St	The						SLAVY			\tilde{C}	
Printed Name	e: Steve Mo	skal				Approved by	Environmental S	pecialist		A	en	>]

Approval Date: Expiration Date: Title: Field Environmental Coordinator 12016 Conditions of Approval: E-mail Address: steven.moskal@bp.com 030028823 20 Date: November 21, 2016 Phone: 505-326-9497

* Attach Additional Sheets If Necessary

Attached 🗌

BP America Federal GC N 1 (B) Sec 14 – T30N – R11W San Juan County, New Mexico API: 30-045-25544

Summary Record of Impact Remediation

<u>September 29, 2016</u> During replacement of a 300 bbl condensate stock tank a sub-grade fiberglass connection at the tank was observed to have a potential integrity issue. Since no state required One-Call was in place, investigation of potential hydrocarbon impacts to soil could not be conducted.

<u>October 4, 2016</u> An investigation of potential impacts was conducted with a backhoe to dig a test-hole at the immediate location where the fiberglass connection failed, next to the 300 bbl tank. The test hole was advanced to a total depth of 14' below surface grade (bsg) and samples were collected for field and laboratory testing, with results as follows:

Investigation Test Results October 4, 2016

Sample ID	Date/Time	Field OVM	TPH 8015B GRO (mg/Kg)	TPH 8015B DRO (mg/Kg)	TPH 8015B MRO (mg/Kg)	TPH Total (mg/Kg)	BTEX Total (mg/Kg)	Chloride (mg/Kg)
TH-A @ 7'	10/04/2016 @ 14:54	3,215	9,400	4,100	ND	13,500	216.2	ND
TH-A @ 11'	10/04/2016 @ 09:40	2,005	4,400	2,300	ND	6,700	67.2	ND
TH-A @ 14'	10/04/2016 @ 14:30	1.0	ND	ND	ND	ND	ND	ND

Site closure standard was determined at 100 ppm TPH based on:

Horizontal distance to dry arroyo = 330 feet (10 points) Nearest water well > 1,000 feet (0 points) Depth to groundwater based on site BGT permit > 50 feet (10 points)

The estimated total impact exceeding standards was estimated at 15' x 15' x 14' deep. Potential volume of fluid lost could not be determined.

<u>October 20, 2016</u> Site remediation was conducted using an excavator to remove hydrocarbon impacts at the source area in a final dimension of 18' x 18' x 16' deep. Approximate volume of soils removed was 192 CY.

NMOCD observed closure sampling of the base and sidewall of the remedial excavation with final test results as follows:

Sample ID	Date/Time	Field OVM	TPH 8015B GRO (mg/Kg)	TPH 8015B DRO (mg/Kg)	TPH 8015B MRO (mg/Kg)	TPH Total (mg/Kg)	BTEX Total (mg/Kg)	Chloride (mg/Kg)
West Wall 3-pt (5'-14")	10/20/2016 @ 14:12	2.0	ND	ND	ND	ND	ND	ND
North Wall 3-pt (5' – 14")	10/20/2016 @ 14:15	2.0	ND	ND	ND	ND	ND	ND
East Wall 3- pt (5' – 14")	10/20/2016 @ 14:20	2.5	ND	ND	ND	ND	ND	ND
South Wall 3-pt (5' – 14")	10/20/2016 @ 14:22	1.3	ND	ND	ND	ND	ND	38
Base 5-pt @ 16'	10/20/2016 @ 14:25	4.7	ND	ND	ND	ND	ND	ND

Closure Sampling Test Results October 20, 2016

October 21, 2016 Excavation crew completes backfilling operation.











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

October 26, 2016

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

OrderNo.: 1610A31

Dear Jeff Blagg:

RE: Federal GC N 1

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/21/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analy	sis Labora	atory, Inc.	Lab Order 1610A31 Date Reported: 10/26/2016				
CLIENT: Blagg Engineering		(lient Sampl	e ID: We	est Wall 3-pt (5'-'14')		
Project: Federal GC N 1			Collection	Date: 10/	/20/2016 2:12:00 PM		
Lab ID: 1610A31-001	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 10:38:21 A	1 28232	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	TOM	
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/21/2016 10:00:22 AM	1 28209	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/21/2016 10:00:22 AM	1 28209	
Surr: DNOP	97.1	70-130	%Rec	1	10/21/2016 10:00:22 AM	1 28209	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB	
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	10/21/2016 10:56:43 AM	A G38127	
Surr: BFB	90.2	68.3-144	%Rec	1	10/21/2016 10:56:43 AM	A G38127	
EPA METHOD 8021B: VOLATILES					Analyst	NSB	
Benzene	ND	0.019	mg/Kg	1	10/21/2016 10:56:43 AM	B38127	
Toluene	ND	0.038	mg/Kg	1	10/21/2016 10:56:43 AM	A B38127	
Ethylbenzene	ND	0.038	mg/Kg	1	10/21/2016 10:56:43 AM	B38127	
Xylenes, Total	ND	0.076	mg/Kg	1	10/21/2016 10:56:43 AM	B38127	
Surr: 4-Bromofluorobenzene	107	80-120	%Rec	1	10/21/2016 10:56:43 AM	B38127	

Analytical Report

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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
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 9
ND		Not Detected at the Reporting Limit		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 Er	nvironmental Analysis	Labora	atory, Inc.	Date Reported: 10/26/2016				
CLIENT: Project:	Blagg Engineering Federal GC N 1		(Client Sam Collection	ple ID: No Date: 10/	orth Wall 3-pt (5'-'14') /20/2016 2:15:00 PM		
Lab ID:	1610A31-002	Matrix:	MEOH (SOIL)	Received	1 Date: 10/	/21/2016 8:15:00 AM		
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS					Analyst:	LGT	
Chloride		ND	30	mg/Kg	20	10/21/2016 10:50:46 AN	28232	
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst:	том	
Diesel Ra	ange Organics (DRO)	ND	9.2	mg/Kg	1	10/21/2016 10:21:54 AN	28209	
Motor Oil	Range Organics (MRO)	ND	46	mg/Kg	1	10/21/2016 10:21:54 AM	28209	
Surr: D	DNOP	89.6	70-130	%Rec	1	10/21/2016 10:21:54 AM	28209	
EPA MET	HOD 8015D: GASOLINE RANGE	=				Analyst:	NSB	
Gasoline	Range Organics (GRO)	ND	4.3	mg/Kg	1	10/21/2016 11:21:00 AM	G38127	
Surr: E	3FB	90.7	68.3-144	%Rec	1	10/21/2016 11:21:00 AM	G38127	
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB	
Benzene		ND	0.022	mg/Kg	1	10/21/2016 11:21:00 AM	B38127	
Toluene		ND	0.043	mg/Kg	1	10/21/2016 11:21:00 AM	B38127	
Ethylben	zene	ND	0.043	mg/Kg	1	10/21/2016 11:21:00 AM	B38127	
Xylenes,	Total	ND	0.086	mg/Kg	1	10/21/2016 11:21:00 AM	B38127	
Surr: 4	-Bromofluorobenzene	106	80-120	%Rec	1	10/21/2016 11:21:00 AM	B38127	

Analytical Report Lab Order 1610A31

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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
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 9
N	ND	Not Detected at the Reporting Limit	Р	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

Mary licar febure	Analy	tical	Re	port
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Lab Order 1610A31

Date Reported: 10/26/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg EngineeringClient Sample ID: East Wall 3-pt (5'-'14')Project: Federal GC N 1Collection Date: 10/20/2016 2:20:00 PMLab ID: 1610A31-003Matrix: MEOH (SOIL)Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS		N			Analys	st: LGT
Chloride	ND	30	mg/Kg	20	10/21/2016 11:03:11 A	M 28232
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analys	st: TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/21/2016 10:43:36 A	M 28209
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/21/2016 10:43:36 A	M 28209
Surr: DNOP	92.4	70-130	%Rec	1	10/21/2016 10:43:36 A	M 28209
EPA METHOD 8015D: GASOLINE RANGE					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	10/21/2016 11:45:18 A	M G38127
Surr: BFB	91.6	68.3-144	%Rec	1	10/21/2016 11:45:18 A	M G38127
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.020	mg/Kg	1	10/21/2016 11:45:18 A	M B38127
Toluene	ND	0.041	mg/Kg	1	10/21/2016 11:45:18 A	M B38127
Ethylbenzene	ND	0.041	mg/Kg	1	10/21/2016 11:45:18 A	M B38127
Xylenes, Total	ND	0.082	mg/Kg	1	10/21/2016 11:45:18 A	M B38127
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	10/21/2016 11:45:18 A	M B38127

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		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page	e 3 of 9	
NI		Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 5 01 9	
	R RPD outside accepted recovery limits		RL	Reporting Detection Limit		
	S	% Recovery outside of range due to dilution or matrix	W	W Sample container temperature is out of limit as spe		

Hall Er	vironmental Analysis	s Labora	atory, Inc.	Date Reported: 10/26/2016				
CLIENT: Project: Lab ID:	Blagg Engineering Federal GC N 1 1610A31-004	Matrix:	MEOH (SOIL)	Client Samp Collection Received	le ID: So Date: 10/ Date: 10/	uth Wall 3-pt (5'-'14') /20/2016 2:22:00 PM /21/2016 8:15:00 AM	-	
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS					Analyst	LGT	
Chloride		38	30	mg/Kg	20	10/21/2016 11:15:36 AM	1 28232	
EPA MET	HOD 8015M/D: DIESEL RANG		S			Analyst	TOM	
Diesel Ra	ange Organics (DRO)	ND	9.8	mg/Kg	1	10/21/2016 11:05:13 AM	1 28209	
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	10/21/2016 11:05:13 AM	1 28209	
Surr: D	DNOP	92.5	70-130	%Rec	1	10/21/2016 11:05:13 AM	28209	
EPA MET	HOD 8015D: GASOLINE RANG	E				Analyst:	NSB	
Gasoline	Range Organics (GRO)	ND	4.0	mg/Kg	1	10/21/2016 12:09:47 PM	1 G38127	
Surr: E	3FB	85.4	68.3-144	%Rec	1	10/21/2016 12:09:47 PM	1 G38127	
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB	
Benzene		ND	0.020	mg/Kg	1	10/21/2016 12:09:47 PM	1 B38127	
Toluene		ND	0.040	mg/Kg	1	10/21/2016 12:09:47 PM	1 B38127	
Ethylben	zene	ND	0.040	mg/Kg	1	10/21/2016 12:09:47 PM	B38127	
Xylenes,	Total	ND	0.080	mg/Kg	1	10/21/2016 12:09:47 PM	1 B38127	
Surr: 4	-Bromofluorobenzene	98.8	80-120	%Rec	1	10/21/2016 12:09:47 PM	1 B38127	

Analytical Report Lab Order 1610A31

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method B	lank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 4 of 9
ND Not Detected at the Reporting Limit		Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age + 01 7
	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

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Lab Order 1610A31

Date Reported: 10/26/2016

Hall Environmental Analysis Laboratory, Inc.

Analyses		Result	POL Oual	Units	DF Date Analyzed	B
Lab ID:	1610A31-005	Matrix:	MEOH (SOIL)	Received	Date: 10/21/2016 8:15:00 AM	
Project:	Federal GC N 1			Collection	Date: 10/20/2016 2:25:00 PM	
CLIENT:	Blagg Engineering		0	lient Samp	le ID: Base 5-pt @16'	

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS		8 ₁₁ 8			Analyst:	LGT
Chloride	ND	30	mg/Kg	20	10/21/2016 11:28:00 AM	1 28232
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst:	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/21/2016 11:21:19 AM	28209
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/21/2016 11:21:19 AM	28209
Surr: DNOP	103	70-130	%Rec	1	10/21/2016 11:21:19 AM	28209
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	10/21/2016 12:34:19 PM	G38127
Surr: BFB	84.8	68.3-144	%Rec	1	10/21/2016 12:34:19 PM	G38127
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.021	mg/Kg	1	10/21/2016 12:34:19 PM	B38127
Toluene	ND	0.042	mg/Kg	1	10/21/2016 12:34:19 PM	B38127
Ethylbenzene	ND	0.042	mg/Kg	1	10/21/2016 12:34:19 PM	B38127
Xylenes, Total	ND	0.084	mg/Kg	1	10/21/2016 12:34:19 PM	B38127
Surr: 4-Bromofluorobenzene	98.4	80-120	%Rec	1	10/21/2016 12:34:19 PM	B38127

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
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 9
	ND	Not Detected at the Reporting Limit	Р	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

WO#: 1610A31 26-Oct-16

Н	a	11	F	nv	ir	on	m	en	ta	I	l na	alj	ysi	İS	La	b	01	ra	to	r	y,	In	IC.
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Client: Blagg Engineering Project: Federal GC N 1

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			
r				
Sample ID LCS-28232	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-28232 Client ID: LCSS	SampType: LCS Batch ID: 28232	TestCode: EPA Method RunNo: 38151	300.0: Anions	
Sample ID LCS-28232 Client ID: LCSS Prep Date: 10/21/2016	SampType: LCS Batch ID: 28232 Analysis Date: 10/21/2016	TestCode: EPA Method RunNo: 38151 SeqNo: 1190571	300.0: Anions Units: mg/Kg	
Sample ID LCS-28232 Client ID: LCSS Prep Date: 10/21/2016 Analyte	SampType: LCS Batch ID: 28232 Analysis Date: 10/21/2016 Result PQL SPK value	TestCode: EPA Method RunNo: 38151 SeqNo: 1190571 SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit 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
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Ρ Sample pH Not In Range
- RL **Reporting Detection Limit**
- W Sample container temperature is out of limit as specified

Page 6 of 9

QC SUMMARY REPORT

Hall	Envir	onmental	Ana	lysis	La	bora	tory,	Inc.
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Client: Blagg Engineering

Project: Federal GC N 1

Sample ID	LCS-28209	Samp	Type: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batc	h ID: 28	209	F	RunNo: 3	8116				
Prep Date:	10/21/2016	Analysis [Date: 1	0/21/2016	S	SeqNo: 1	189331	Units: mg/k	٢g		
Analyte	*	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	48	10	50.00	0	95.5	62.6	124			,
Surr: DNOP		3.8		5.000		75.8	70	130			
Sample ID	MB-28209	Samp	ype: MI	BLK	Tes	Code: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batc	h ID: 28	209	R	unNo: 3	8116				
Prep Date:	10/21/2016	Analysis E	ate: 1	0/21/2016	S	eqNo: 1	189332	Units: mg/k	(g		
Analyte	2 - 0	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10			÷.,	a a b se		94. 19		
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		8.7		10.00	281 K	86.9	70	130			
Sample ID	1610A31-001AMS	SampT	ype: MS	3	Test	Code: El	PA Method	8015M/D: Di	esel Rang	e Organics	2
Client ID:							0440				
Chern ID.	West Wall 3-pt (5	'-'1 Batch	n ID: 28	209	R	unNo: 3	5116				
Prep Date:	West Wall 3-pt (5 10/21/2016	Analysis D	n ID: 28 Date: 10	209 0/21/2016	R	iunNo: 3 ieqNo: 1	189554	Units: mg/k	g		
Prep Date: Analyte	West Wall 3-pt (5 10/21/2016	Analysis D Result	n ID: 28 Date: 10 PQL	209 0/21/2016 SPK value	R S SPK Ref Val	eqNo: 1 %REC	189554 LowLimit	Units: mg/k HighLimit	(g %RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range (West Wall 3-pt (5 10/21/2016 Organics (DRO)	Analysis D Result 46	n ID: 28 Date: 10 PQL 9.5	209 0/21/2016 SPK value 47.44	R S SPK Ref Val 0	eqNo: 3 %REC 96.7	189554 LowLimit 33.9	Units: mg/K HighLimit 141	(g %RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range (Surr: DNOP	West Wall 3-pt (5 10/21/2016 Organics (DRO)	r-'1 Batcl Analysis D Result 46 3.8	n ID: 28 Date: 10 PQL 9.5	209 D/21/2016 SPK value 47.44 4.744	R S SPK Ref Val 0	eqNo: 3 %REC 96.7 79.3	189554 LowLimit 33.9 70	Units: mg/K HighLimit 141 130	% RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range (Surr: DNOP	West Wall 3-pt (5 10/21/2016 Organics (DRO) 1610A31-001AMS	'1 Batcl Analysis D Result 46 3.8 D SampT	n ID: 28 Date: 10 PQL 9.5	209 0/21/2016 SPK value 47.44 4.744	R SPK Ref Val 0 Test	eqNo: 1 %REC 96.7 79.3 Code: EF	189554 LowLimit 33.9 70 PA Method	Units: mg/K HighLimit 141 130 8015M/D: Die	Kg %RPD esel Range	RPDLimit	Qual
Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID:	West Wall 3-pt (5 10/21/2016 Organics (DRO) 1610A31-001AMS West Wall 3-pt (5	Analysis D Analysis D Result 46 3.8 50 SampT '-'1 Batcl	PQL 9.5 9.5 9.5 9.5	209 0/21/2016 SPK value 47.44 4.744 SD 209	R SPK Ref Val 0 Test R	unNo: 3 eqNo: 1 %REC 96.7 79.3 Code: Ef unNo: 3	189554 LowLimit 33.9 70 PA Method 8116	Units: mg/K HighLimit 141 130 8015M/D: Die	kg %RPD esel Range	RPDLimit	Qual
Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date:	West Wall 3-pt (5 10/21/2016 Organics (DRO) 1610A31-001AMS West Wall 3-pt (5 10/21/2016	 '-'1 Batcl Analysis D Result 46 3.8 D SampT '-'1 Batcl Analysis D 	PQL 9.5 7ype: MS 10: 28 10: 28 24: 10	209)/21/2016 SPK value 47.44 4.744 SD 209)/21/2016	R SPK Ref Val 0 Test R S	unNo: 3 eqNo: 1 %REC 96.7 79.3 Code: Ef unNo: 3 eqNo: 1	189554 LowLimit 33.9 70 PA Method 8116 189570	Units: mg/K HighLimit 141 130 8015M/D: Die Units: mg/K	Kg %RPD esel Range	RPDLimit	Qual
Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte	West Wall 3-pt (5 10/21/2016 Organics (DRO) 1610A31-001AMS West Wall 3-pt (5 10/21/2016	 H Batcl Analysis D Result 46 3.8 D SampT H Batcl Analysis D Result 	PQL 9.5 9.5 9.5 9.5 9.5 9.5 9.5 1 ID: 28 9.5 1 ID: 28 9.5 1 ID: 28 9.5 1 ID: 28 9.5 1 ID: 28 9.5	209 0/21/2016 SPK value 47.44 4.744 5D 209 0/21/2016 SPK value	R SPK Ref Val 0 Test R SPK Ref Val	unNo: 3 eqNo: 1 %REC 96.7 79.3 Code: Ef unNo: 3 eqNo: 1 %REC	189554 LowLimit 33.9 70 PA Method 8116 189570 LowLimit	Units: mg/K HighLimit 141 130 8015M/D: Die Units: mg/K HighLimit	Kg %RPD esel Range Kg %RPD	RPDLimit	Qual
Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (West Wall 3-pt (5 10/21/2016 Organics (DRO) 1610A31-001AMS West Wall 3-pt (5 10/21/2016 Organics (DRO)	 H Batcl Analysis D Result 46 3.8 Batcl Analysis D Analysis D Result 49 	PQL 9.5 9.5 9.5 9.5 9.5 1 ID: 28 0ate: 10 PQL 9.4	209 0/21/2016 SPK value 47.44 4.744 5D 209 0/21/2016 SPK value 46.99	R SPK Ref Val 0 Test R SPK Ref Val 0	unNo: 3 eqNo: 1 %REC 96.7 79.3 Code: Ef unNo: 3 eqNo: 1 %REC 103	189554 LowLimit 33.9 70 PA Method 8116 189570 LowLimit 33.9	Units: mg/K HighLimit 141 130 8015M/D: Die Units: mg/K HighLimit 141	Kg %RPD esel Range Kg %RPD 5.66	RPDLimit organics RPDLimit 20	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
- 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 7 of 9

1610A31 26-Oct-16

WO#:

QC SUMMARY REPORT

Hall Environmental Analysis	Laboratory, Inc.
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WO#: 1610A31

26-Oct-16

Client: **Blagg Engineering Project:** Federal GC N 1 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 PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 93.7 940 1000 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 %REC %RPD RPDLimit Result PQL SPK value SPK Ref Val LowLimit HighLimit Qual Analyte Gasoline Range Organics (GRO) 24 5.0 25.00 0 98.0 74.6 123 Surr: BFB 920 1000 92.5 68.3 144 TestCode: EPA Method 8015D: Gasoline Range Sample ID 1610A31-001AMS SampType: MS West Wall 3-pt (5'-'1 Client ID: Batch ID: G38127 RunNo: 38127 Prep Date: Analysis Date: 10/21/2016 SeqNo: 1190257 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result PQL 3.8 19.04 0 101 61.3 150 Gasoline Range Organics (GRO) 19 Surr: BFB 700 68.3 761.6 91.5 144 Sample ID 1610A31-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Client ID: West Wall 3-pt (5'-'1 Batch ID: G38127 RunNo: 38127 Prep Date: Analysis Date: 10/21/2016 SeqNo: 1190258 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 19 3.8 19.04 0 101 61.3 150 0.119 20 Surr: BFB 700 761.6 92.4 68.3 0 0 144

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- в Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- I 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 8 of 9

OC	SUM	MARY	REP	ORT
νv	00111			

Hall Environmental	Analysi	is Laboratory,	Inc.
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Client: Blag Project: Fed

Blagg Engineering Federal GC N 1

Sample ID	5ML RB	Samp	Туре: М	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		5 P
Client ID:	PBS	Batc	h ID: B3	8127	F	RunNo: 3	8127				
Prep Date:		Analysis [Date: 1	0/21/2016	5	SeqNo: 1	190261	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8	ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total	1	ND	0.10								
Surr: 4-Bron	nofluorobenzene	1.1		1.000		115	80	120		· · · ·	
Sample ID	100NG BTEX LCS	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles	tan ta t	
Client ID:	LCSS	Batc	h ID: B3	8127	F	RunNo: 3	8127				
Prep Date:		Analysis D	Date: 10	0/21/2016	5	SeqNo: 1	190262	Units: mg/k	(g		
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		2 22 - 2	
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-Bron	nofluorobenzene	1.0		1.000		102	80	120			
Sample ID	1610A31-002AMS	SampT	Гуре: МS	3	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID:	North Wall 3-pt (5	-1 Batcl	h ID: B3	8127	F	RunNo: 3	8127				
Prep Date:		Analysis D	Date: 10)/21/2016	s	SeqNo: 1	190263	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.83	0.022	0.8613	0	95.9	71.5	122			
Toluene		0.80	0.043	0.8613	0	93.0	71.2	123			
Ethylbenzene		0.79	0.043	0.8613	0	91.5	75.2	130			
Xylenes, Total		2.5	0.086	2.584	0	95.2	72.4	131			
Surr: 4-Brom	nofluorobenzene	0.87		0.8613	2 A.	101	80	120		2 ° 1 2 ° 1 2 ° 1	
Sample ID	1610A31-002AMS	D SampT	Гуре: МЗ	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		-
Client ID:	North Wall 3-pt (5	-'1 Batch	h ID: B3	8127	F	RunNo: 3	8127				
Prep Date:		Analysis D	Date: 10)/21/2016	S	SeqNo: 1	190264	Units: mg/K	g		
Analyte	2 ¹ 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2 5.2 2	0.78	0.022	0.8613	0	90.7	71.5	122	5.52	20	2
Toluene		0.74	0.043	0.8613	0	86.0	71.2	123	7.79	20	
Ethylbenzene		0.73	0.043	0.8613	0	84.8	75.2	130	7.65	20	
Vulonos Total		23	0.086	2 584	0	90.3	724	131	5 27	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

0.84

0.8613

- 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

97.8

- 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

80

120

0

0

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WO#: 1610A31

26-Oct-16

HALL Hall Environme Environmental ANALYSIS LABORATORY TEL: 505-345-3 Website: ww	eniai Anatysis Laborai 4901 Hawkins Albuquerque, NM 87 3975 FAX: 505-345-4 w.hallenvironmental.c	tory NE 109 Sam 107 com	iple Log-In Ch	eck List						
Client Name: BLAGG Work Order Num	nber: 1610A31		RcptNo: 1							
Received by/date: (D 2)	IQ	λ								
Logged By: Ashley Gallegos 10/21/2016 8:15:00	0 AM	AJ								
Completed By: Ashley Gallegos 10/21/2016 8:21:00	2 AM	AF								
Reviewed By: a.J 0/2///	6									
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									
logh										
<u>Log m</u>	1									
4. Was an attempt made to cool the samples?	Yes 🗹	NO								
5. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0°C	Yes 🗹	No 🗆								
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗌								
7. Or finite to any low relation for building to the state of the stat	×	No 🗖								
7. Sufficient sample volume for indicated test(s)?	Yes 🗹									
8. Are samples (except VOA and ONG) propeny preserved?	Yes 🔽		NA L							
3. Was preservative added to bottles?	Tes L									
10. VOA vials have zero headspace?	Yes	No 🗌	No VOA Vials 🗹							
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved	4 4 4						
	C P		bottles checked							
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No	tor 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 🗆	м.							
15. Were all holding times able to be met?	Yes 🗹	No 🗆	Checked by:	· · · · ·						
(If no, notiny customer for authorization.)			· · · · · ·	8						
Special Handling (if applicable)										
16. Was client notified of all discrepancies with this order?	Yes	No 🗍	NA 🔽							
Barran Natiliad										
By Whom:		hone 🗍 Eav	in Person							
Regarding:										
Client Instructions:										
17. Additional remarks:			н							
19. Cooler Information										
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date	Signed By								
1 1.1 Good Not Present										

If necessary, Sem	te: Time: Re	te: Time: Rel						1425	1422	[420	1415	5 211-1 ard	vate Time M	EDD (Type)	creditation NELAP	/QC Package: Standard	iail or Fax#:	one #: (SOS)		illing Address:	BLANG- F	ent: BP Ame	Chain-of
WHUCLLL olds submitted to Hall Environmental may be su	requished by:	Multi Blagg						" BASE 5-PE @ 16'	" South Wall 3-pt (5-1	" EAST WELL 3-PE(5-10	NORTH Wall 3-PE (5-14	012 WEST Wall 3-pt (5-14	latrix Sample Request ID		Other	Level 4 (Full Validation)		320-1183			JEINERING TNC.	RICA	-Custody Record
Angle C	Received by:	Received by:						R	"	->) 402×1	Container P Type and #	Sample Tempe	Sampler: J.	J. F.	Project Manage		Project #:	FEDERA	Project Name:	□ Standard	Tum-Around Ti
y WMela	>	in the						~	=	4	4	Cool	reservative Type	rature: 1.1	BLAGE	L.Alds	Ĭ.			GCN		Rush	me:
A 10/24/11e 08/	Date Time	Date Time						2005	-004	EQ-	-002	- 001	HEAL NO: 1400A3		N6 No					+		AME UN	ASAP
possib		Rem						×	×	×	×	×	BTEX + MT	3E -	F IMB	ls (802	1)			1			
ility. A		larks				ļ							BTEX + MTE	3E	+ TPH	(Gas o	only)		Tel	490			
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contra	<	ALN'		+		-			-			-	TPH (Metho	d 4'	18.1)				-345	wkin:	ŧ	Þ :	C
oted da	5	GP:	<u>, 1</u> , 1			-					-				8270 9	SIMS			-397:	NE			2
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ated or	YR!	SKA			1-								8260B (VOA)				lues	- 345	le. N		26	5
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nalytica							1	×	×	×	×	X	CHLORIDI	Ε					7	109	Ì	R	1
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