2 District I 1625 N. French Dr., Hobbs, NM 88240 District II 1025 N. French Dr., Hobbs, NM 88240 District III 1000 Rio Brazos Road, Aztec, NM 87410

A

State of New Mexico Energy Minerals and Natural Resources

> **Oil Conservation Division** 1220 South St. Francis Dr

OIL CONS. DIV DIST. 3

MAR 1 5 2016 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notifice	tion and Corrective Actio	n		
Kelease Notifica	OPEDATOR			
Name of Company DD	OPERATOR Contrast: Store Maskel	Initial Report I Final Repo		
Address: 200 Energy Court Farmington NM 87401	Telephone No : 505-326-9497			
Facility Name: Gallegos Canyon Unit 230E	Facility Type: Natural gas well			
racinty Ivanie. Ganegos Ganyon Onic 2501	Tuenty Type. Tutului gus Hell			
Surface Owner: Federal Mineral Ov	vner: Federal	API No. 3004526010		
LOCAT	TION OF RELEASE			
Unit LetterSectionTownshipRangeFeet from the2328N12W1,070	North/South LineFeet from theEast/South1,630East	West Line County: San Juan		
Latitude36.64318°	Longitude108.07756 °			
NATU	IRE OF RELEASE	Martin Santa Para and		
Type of Release: condensate/oil and produced water	Volume of Release: unknown	Volume Recovered: Approx. none		
source of Kelease: 95 bbl BGT – Tank A	Date and Hour of Occurrence:	Date and Hour of Discovery: 2/12/2016		
Was Immediate Notice Given?	uired If YES, To Whom?			
By Whom?	Date and Hour:			
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.			
☐ Yes ⊠ No f a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Soils belo	w the BGT were sampled during closure ac	ctivities. NMOCD observed sampling. The		
Yes ⊠ No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Soils below GGT appeared to have good integrity and the impacts are likely relation Describe Area Affected and Cleanup Action Taken.* The impacted and collected under the observation of the NMOCD with results below the solution of the NMOCD with results below the	w the BGT were sampled during closure ac ted to historical releases or the location of a soils were excavated and removed from the of 180 cubic yards removed from the site. the spill and release guidelines. A field repo	ctivities. NMOCD observed sampling. The former earthen pit. site for landfarm treatment. The area of Confirmation closure samples were rt and laboratory reports are attached.		
Yes ⊠ No f a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Soils below GGT appeared to have good integrity and the impacts are likely relay Describe Area Affected and Cleanup Action Taken.* The impacted is accavation measured approximately 25'x 25'x 11' deep with a total ollected under the observation of the NMOCD with results below the hereby certify that the information given above is true and complete egulations all operators are required to report and/or file certain relevablic health or the environment. The acceptance of a C-141 report hould their operations have failed to adequately investigate and removed r the environment. In addition, NMOCD acceptance of a C-141 report hould their operations laws and/or regulations.	ow the BGT were sampled during closure as ted to historical releases or the location of a soils were excavated and removed from the of 180 cubic yards removed from the site. The spill and release guidelines. A field repor- e to the best of my knowledge and understa- ase notifications and perform corrective act by the NMOCD marked as "Final Report" dediate contamination that pose a threat to goort does not relieve the operator of response	ctivities. NMOCD observed sampling. The former earthen pit. site for landfarm treatment. The area of Confirmation closure samples were rt and laboratory reports are attached. Ind that pursuant to NMOCD rules and tions for releases which may endanger does not relieve the operator of liability round water, surface water, human health ibility for compliance with any other		
☐ Yes ⊠ No f a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Soils below GGT appeared to have good integrity and the impacts are likely relay Describe Area Affected and Cleanup Action Taken.* The impacted and collected under the observation of the NMOCD with results below the hereby certify that the information given above is true and complete egulations all operators are required to report and/or file certain relevablic health or the environment. The acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould heavy the failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould heavy the failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould heavy the failed to adequately investigate and remover the environment is a modely the failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould heavy the failed to adequately investigate and failed to adequately investigate and remover the environment. In addition failed to adequately investigate and failed to adequately investigate and failed to	whe BGT were sampled during closure at ted to historical releases or the location of a soils were excavated and removed from the of 180 cubic yards removed from the site. The spill and release guidelines. A field repor- te to the best of my knowledge and understant as notifications and perform corrective act by the NMOCD marked as "Final Report" of the diate contamination that pose a threat to go port does not relieve the operator of response OIL CONSER	tivities. NMOCD observed sampling. The former earthen pit. site for landfarm treatment. The area of Confirmation closure samples were rt and laboratory reports are attached. Ind that pursuant to NMOCD rules and tions for releases which may endanger does not relieve the operator of liability round water, surface water, human health ibility for compliance with any other ATION DIVISION		
Yes ⊠ No     Yes ⊠ No     f a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Soils belo     GGT appeared to have good integrity and the impacts are likely rela     Describe Area Affected and Cleanup Action Taken.* The impacted accavation measured approximately 25'x 25'x 11' deep with a total     collected under the observation of the NMOCD with results below the hereby certify that the information given above is true and complete egulations all operators are required to report and/or file certain relevablic health or the environment. The acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate and remover the environment. In addition, NMOCD acceptance of a C-141 report hould their operations have failed to adequately investigate.	we the BGT were sampled during closure at ted to historical releases or the location of a soils were excavated and removed from the of 180 cubic yards removed from the site. The spill and release guidelines. A field report the spill and release guidelines. A field report to the best of my knowledge and understa ase notifications and perform corrective act by the NMOCD marked as "Final Report" of the operator of response OIL CONSERT Approved by Environmental Specialis	tivities. NMOCD observed sampling. The former earthen pit. site for landfarm treatment. The area of Confirmation closure samples were rt and laboratory reports are attached. Ind that pursuant to NMOCD rules and tions for releases which may endanger does not relieve the operator of liability round water, surface water, human health ibility for compliance with any other ACTION DIVISION		
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# BP America: GCU 230E (O) Sec 23 – T28N – R12W San Juan County, New Mexico API: 30-045-26010

#### Summary Record of Impact Remediation

<u>February 12, 2016</u> Initial sampling of 95 BGT for permanent closure. No visual staining or other indication that the BGT had any prior release or integrity issues. Sampling witnessed by NMOCD.

<u>February 13, 2016</u> Receipt of rush laboratory test reports. BGT failed on TPH only (at 2,237 mg/Kg, primarily diesel and motor oil range organics). Failed lab results reported to NMOCD.

Site NMOCD/BLM closure standard determined at 100 ppm TPH based on:

Horizontal Distance to Dry Wash < 1,000 feet (10 points) Nearest Water Well > 1,000 feet (0 points) Depth to Groundwater < 100 feet (10 points)

<u>February 16, 2016</u> Begin investigation of impact area using backhoe. Test holes dug to approximately 11' deep in center and at perimeter edges of prior BGT location. Soft sandstone encountered at approximately 5' – 6' below grade. Base samples collected from each test hole, and composite sidewall samples collected from perimeter edge test holes for laboratory testing.

February 17, 2016 Receive rush lab results. All passed except south sidewall composite.

<u>February 18, 2016</u> Hydrovac along Enterprise sales line on south side of impact area to allow excavation closer to that line. No evidence of hydrocarbon impacts along or below Enterprise line.

<u>February 24, 2016</u> Excavate source area to approximately 25' x 25' x 11' deep using trackhoe. Remove all impacted soils on south sidewall, with final excavation about 4' - 5' north of Enterprise line. Sample south sidewall for closure, witnessed by NMOCD

February 25, 2016 Receive rush lab results from prior days sampling. Samples pass.

Sample ID	Date/Time	Field OVM	TPH 8015B (DRO+GRO+MRO)	BTEX 8021	Chloride	Comments
TH-1 @ 11' (@BGT location)	2/16/2016 @ 12:36	2.3 ppm	ND	ND	ND	Passed
TH-2 @ 11' (North Base)	2/16/2016 @ 12:23	1.3 ppm	ND	ND	38 mg/Kg	Passed
TH-2 @ (6'8'9.5') (North Sidewall)	2/16/2016 @ 10:04	1.3 ppm	ND	ND	NA	Passed
TH-3 @ 11' (West Base)	2/16/2016 @ 12:12	1.1 ppm	ND	ND	35 mg/Kg	Passed
TH-3 @ (6'8'11') (West Sidewall)	2/16/2016 @ 12:12	29.9 ppm	ND	ND	NA	Passed

TH-4 @ 11.5' (South Base)	2/16/2016 @ 13:13	1.8 ppm	ND	ND	ND	Passed
TH-4 @ (6'8'10') (South Sidewall)	2/16/2016 @ 13:06	2,504 ppm	1,920 mg/Kg	0.71 mg/Kg	NA	Failed & subsequently excavated.
TH-5 @ 11.5' (East Base)	2/16/2016 @ 13:41	0.7 ppm	ND	ND	ND	Passed
TH-5 @ (6'8'10') (East Sidewall)	2/16/2016 @ 13:37	2.0 ppm	ND	ND	NA	Passed
South Wall 3-pt (6'-8'-11')	2/24/2016 @ 14:37	0.5 ppm	ND	ND	ND	Passed
NMOCD/BLM	Closure Standard:	NA	100 mg/Kg	50 mg/Kg	100 mg/Kg	

<u>February 26, 2016</u> Complete backfilling operations. Total volume transported to JFJ Crouch Mesa Landfarm = 180 cubic yards (Form C-138 Attached).





				1	1	-
RP	BLAGG EN	IGINEERING, IN	IC.	API# 300	45260	10
CLIENT:	P.O. BOX 87, BL	OOMFIELD, N	N 87413	TANK ID		
1	(50	5) 632-1199		(if applicble):	A	
FIELD REPORT:	(circle one): BGT CONFIRMATION /	RELEASE INVESTIGATION / (	OTHER:	PAGE #:	2_ of	
SITE INFORMATION	I: SITE NAME: GCU # 2	230E	and the state	DATE STARTED:	02/16/	/16
QUAD/UNIT: O SEC: 23 TWP:	28N RNG: 12W PM:	NM CNTY: SJ	ST: NM	DATE FINISHED:		
1/4 -1/4/FOOTAGE: 1,070'S / 1,6	30'E SW/SE LEASE TH	PE: FEDERAL / STATE	FEE/ INDIAN	ENVIRONMENTAL		
LEASE #: SF078904	PROD. FORMATION:DK/GP CO	NTRACTOR: MBF - J. F	POWELL	SPECIALIST(S):	NJV/J	CB
REFERENCE POINT	WELL HEAD (W.H.) GPS	COORD.: 36.6434	9 X 108.07760	GL ELE	V.: 5.77	71'
1) 95 BGT (A) (DW/DB)	GPS COORD .: 36.	64318 X 108.07756	DISTANCE/BEA	RING FROM WH.:	120', S11	E
2)	GPS COORD .:		DISTANCE/BEA	RING FROM WH .:	1.1.2.1	
3)	GPS COORD .:		DISTANCE/BEA	RING FROM WH .:		
4)	GPS COORD.:		DISTANCE/BEA	RING FROM W.H.:	1944	21.94
SAMPLING DATA	CHAIN OF CUSTODY RECORD(S) # OF				R	OVM
1) SAMPLE ID: Multiple samples (see su	Immary table) SAMPLE DATE: 02/16/1	6 SAMPLE TIME	LAR ANALYSIS 801	5B/8021B/300.0	(CI)	(ppm)
2) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:			
3) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME	LAB ANALYSIS:			
4) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:			
5) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:			
SOIL DESCRIPTION	SOIL TYPE: SAND / SILTY SAND / SI	LT / SILTY CLAY / CLAY / GRAVE	EL/OTHER BEDRO	CK (SANDSTONE)	10124	
SOIL COLOR: OLIVE TO LIGHT GRAY	/ PALE YELLOWISH BROWN	PLASTICITY (CLAYS): NON PLASTIC	C / SLIGHTLY PLASTIC / C	OHESIVE / MEDIUM PLAS	TIC / HIGHLY P	LASTIC
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY	COHESIVE / COHESIVE / HIGHLY COHESIVE	DENSITY (COHESIVE CLAYS &	SILTS): SOFT / FIRM /	STIFF / VERY STIFF / H	ARD	
CONSISTENCY (NON COHESIVE SOILS): LO MOISTURE: DRY/SLIGHTLY MOIST / MOIST / WE	ET / SATURATED / SUPER SATURATED	READINGS	EXPLANATION - SEE	SUMMARY TABLE	FOR PID	
SAMPLE TYPE: GRAB COMPOSITE #	OF PTS. 3	ANY AREAS DISPLAYING WETNES	SS: YES NO EXPLAN	ATION -	C.C.L.	
DISCOLORATION/STAINING OBSERVED: YES / N	O EXPLANATION - VARYING GRAYS	TO BROWNS OBSERVED	IN BEDROCK SAND	STONE.		
SITE OBSERVATION	IS: LOST INTEGRITY OF EQUIPMENT:	YES NO EXPLANATION -		12.11 · · · · · · ·	11. S.	
APPARENT EVIDENCE OF A RELEASE OBSERVE	DAND/OR OCCURRED : YES NO EXPLAN	NATION: FROM SUBSEQUEN	T SAMPLING LAB	RESULTS CONDUC	TED ON 2/	12/16.
EQUIPMENT SET OVER RECLAIMED AREA:	YES / NO EXPLANATION - UNKNOW	N AT THIS TIME. R (see sketch below) SAI		NCES ARE. THI to	TH2 = 8 FT	
TH1 to TH3 = 10 FT, TH1 to TH4 = 11 F	T., TH1 to TH5 = 11 FT. TH4 ~ 10 F	T. FROM ENTERPRISE PIPI	ELINE.	NOLO ARE, MILO		
SOIL IMPACT DIMENSION ESTIMATION:	<u>?</u> ft. X <u>?</u>	ft. X <u>?</u> ft. I	IMPACTED SOIL EST	TIMATION (Cubic Yar	rds):	?
DEPTH TO GROUNDWATER: <100' N	EAREST WATER SOURCE: >1,000'	NEAREST SURFACE WATER:	<1,000' NMOC	D TPH CLOSURE STD:	100	ppm
SITE SKETCH	BGT Located : off on site	PLOT PLAN circ	le: attached OVM	CALIB. READ. = 100.	.3 ppm F	RF =0.52
	TO		A OVM	CALIB. GAS = 100	ppm	
	W.H.		N TIME		TE: 02/16	/16
	THE			MISCELL	NOTE	S
		COMPRESSOR	W	0.	HOIL .	Ĭ
PBGTL	TH2		P	EE # P_273	61.01	
T.B. ~ 5'	XEX IN .	SEPARATOR		D. VMOSE	HOFEC	
B.G.				1#·		
т	H3 PREVIOL	IS BERM	Pe	ermit date/s).	06/15/1	1
ТН1 ———	POS	TION		CD Appr data/e):	08/09/1	1
	TH4		ELINE Tan	k OVM = Organic V	/apor Meter	-
The second second second				BGT Sidewalls Visibl	le: Y /(N)	
		)	SPD	BGT Sidewalls Visibl	le: Y / N	
		WTH -TEST HOLE - ADDOOV W	VH - WELL HEAD	BGT Sidewalls Visibl	e: Y / N	
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELC APPLICABLE OR NOT AVAILABLE; SW- SINGLE	WERRADE TANK LOCATION; SPD = SAMPLE POI WAGRADE TANK LOCATION; SPD = SAMPLE POI WALL; DW - DOUBLE WALL; SB - SINGLE BOTTO	VV, 1.II TEST HOLE, ~ = APPROX.; V VT DESIGNATION; R.W. = RETAINING V V; DB - DOUBLE BOTTOM.	NALL; NA - NOT	agnetic declinatio	n: <b>10°</b> E	
NOTES COOCI E EADTH IMACE	RY DATE: 3/15/2015	ONSITE: 02/09/1	6. 02/12/16. 02/1	6/16		



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

February 25, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU #230E

OrderNo.: 1602771

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 2/17/2016 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

Analytical Report	
Lab Order 1602771	

# Hall Environmental Analysis Laboratory, Inc.

#### Client Sample ID: TH1 @ 11' **CLIENT: Blagg Engineering Project:** GCU #230E Collection Date: 2/16/2016 12:36:00 PM Received Date: 2/17/2016 7:52:00 AM Lab ID: 1602771-001 Matrix: SOIL Analyses Result PQL Qual Units **DF** Date Analyzed Batch Analyst: LGT **EPA METHOD 300.0: ANIONS** Chloride ND 30 mg/Kg 20 2/23/2016 2:28:30 PM 23908 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: KJH 10 mg/Kg 2/23/2016 11:50:26 AM 23841 Diesel Range Organics (DRO) ND 1 2/23/2016 11:50:26 AM 23841 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 Surr: DNOP 98.1 70-130 %Rec 1 2/23/2016 11:50:26 AM 23841 EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB Gasoline Range Organics (GRO) ND 4.9 mg/Kg 2/22/2016 12:26:31 PM 23846 1 %Rec 2/22/2016 12:26:31 PM 23846 Surr: BFB 90.6 66.2-112 1 Analyst: NSB **EPA METHOD 8021B: VOLATILES** 2/22/2016 12:26:31 PM 23846 Benzene ND 0.049 mg/Kg 1 1 2/22/2016 12:26:31 PM 23846 Toluene ND 0.049 mg/Kg Ethylbenzene ND 0.049 mg/Kg 1 2/22/2016 12:26:31 PM 23846 2/22/2016 12:26:31 PM 23846 Xylenes, Total ND 0.098 mg/Kg 1 Surr: 4-Bromofluorobenzene 106 80-120 %Rec 1 2/22/2016 12:26:31 PM 23846

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
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 11
	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

<b>Analytical Report</b>	
Lab Order 1602771	

## Hall Environmental Analysis Laboratory, Inc.

**EPA METHOD 8021B: VOLATILES** 

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bron

CLIENT: Project:	Blagg Engineering GCU #230E	Client Sample ID: TH2 @ 11' Collection Date: 2/16/2016 12:23:00 PM						
Lab ID:	1602771-002	Matrix:	SOIL	Received	Received Date: 2/17/2016 7:52:00 AM			
Analyses		Result	PQL Qua	l Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS		See Straft			Analyst	LGT	
Chloride		38	30	mg/Kg	20	2/23/2016 2:40:55 PM	23908	
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANIC	S			Analyst:	KJH	
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	2/23/2016 12:55:18 PM	23841	
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	2/23/2016 12:55:18 PM	23841	
Surr: D	NOP	103	70-130	%Rec	1	2/23/2016 12:55:18 PM	23841	
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst:	NSB	
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	2/22/2016 12:50:11 PM	23846	
Surr: B	FB	92.2	66.2-112	%Rec	1	2/22/2016 12:50:11 PM	23846	

Analyst: NSB

2/22/2016 12:50:11 PM 23846

	ND	0.047	mg/Kg	1	2/22/2016 12:50:11 PM	23846
	ND	0.047	mg/Kg	1	2/22/2016 12:50:11 PM	23846
	ND	0.095	mg/Kg	1	2/22/2016 12:50:11 PM	23846
nofluorobenzene	110	80-120	%Rec	1	2/22/2016 12:50:11 PM	23846

0.047

mg/Kg

1

ND

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

- \* 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 S
- Analyte detected in the associated Method Blank B
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 11 J
- Р Sample pH Not In Range
- RL **Reporting Detection Limit**
- Sample container temperature is out of limit as specified W

Analytical R	eport
Lab Order 160	2771

Analyst: NSB

23846

23846

23846

23846

23846

2/22/2016 1:13:50 PM

CLIENT:	Blagg Engineering			Client Samp	le ID: TH	H3 @ 11'	
Project:	GCU #230E	Maria	TOT	Collection	Date: 2/1	6/2016 12:12:00 PM	
Lab ID:	1602771-003	Matrix:	SOIL	Received	Date: 2/1	1/2016 7:52:00 AM	3.1
Analyses		Result	PQL Qual	l Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst:	LGT
Chloride		35	30	mg/Kg	20	2/23/2016 2:53:19 PM	23908
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANIC	s			Analyst:	KJH
Diesel Ra	ange Organics (DRO)	ND	9.7	mg/Kg	1	2/23/2016 1:16:56 PM	23841
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	2/23/2016 1:16:56 PM	23841
Surr: D	NOP	99.8	70-130	%Rec	1	2/23/2016 1:16:56 PM	23841
EPA MET	HOD 8015D: GASOLINE RAN	GE				Analyst:	NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	2/22/2016 1:13:50 PM	23846
Surr: B	FB	93.5	66.2-112	%Rec	1	2/22/2016 1:13:50 PM	23846

Hall Environmental Analysis Laboratory, Inc.

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

#### **EPA METHOD 8021B: VOLATILES** ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.098 mg/Kg 1

80-120

%Rec

1

111

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

Qualifiers: Value exceeds Maximum Contaminant Level. \* B

- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 11 J
- P Sample pH Not In Range
- **Reporting Detection Limit** RL
- Sample container temperature is out of limit as specified W

Analytical Report Lab Order 1602771

Date Reported: 2/25/2016

#### **CLIENT:** Blagg Engineering Client Sample ID: TH4 @ 11.5' **Project:** GCU #230E Collection Date: 2/16/2016 1:13:00 PM Matrix: SOIL Lab ID: 1602771-004 Received Date: 2/17/2016 7:52:00 AM Result PQL Qual Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride ND 30 2/23/2016 3:05:44 PM 23908 mg/Kg 20 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: KJH Diesel Range Organics (DRO) ND 9.7 mg/Kg 2/23/2016 1:38:28 PM 23841 1 Motor Oil Range Organics (MRO) ND 2/23/2016 1:38:28 PM 23841 49 mg/Kg 1 Surr: DNOP 98.4 70-130 %Rec 1 2/23/2016 1:38:28 PM 23841 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB

Hall Environmental Analysis Laboratory, Inc.

Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	2/22/2016 1:37:25 PM	23846
Surr: BFB	93.1	66.2-112	%Rec	1	2/22/2016 1:37:25 PM	23846
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.046	mg/Kg	1	2/22/2016 1:37:25 PM	23846
Toluene	ND	0.046	mg/Kg	1	2/22/2016 1:37:25 PM	23846
Ethylbenzene	ND	0.046	mg/Kg	1	2/22/2016 1:37:25 PM	23846
Xylenes, Total	ND	0.093	mg/Kg	1	2/22/2016 1:37:25 PM	23846
Surr: 4-Bromofluorobenzene	111	80-120	%Rec	1	2/22/2016 1:37:25 PM	23846

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

	Value exceeds Maximum Contaminant Level.
-	C 1 D'1 . 1D . M!

- 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 4 of 11
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report	
Lab Order 1602771	

23846

23846

23846

23846

of 11

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Project: GCU #230E		(	Client Samp Collection	le ID: TH Date: 2/1	H5 @ 11.5' 6/2016 1:41:00 PM	
Lab ID: 1602771-005	Matrix:	SOIL	Received	Date: 2/1	7/2016 7:52:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS	1000				Analyst	LGT
Chloride	ND	30	mg/Kg	20	2/23/2016 3:18:08 PM	23908
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	KJH
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	2/23/2016 2:00:07 PM	23841
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	2/23/2016 2:00:07 PM	23841
Surr: DNOP	98.0	70-130	%Rec	1	2/23/2016 2:00:07 PM	23841
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	2/22/2016 7:30:35 PM	23846
Surr: BFB	93.0	66.2-112	%Rec	1	2/22/2016 7:30:35 PM	23846
EPA METHOD 8021B: VOLATILES					Analyst:	NSB

Benzene ND 0.049 mg/Kg 2/22/2016 7:30:35 PM 1 Toluene ND 0.049 mg/Kg 2/22/2016 7:30:35 PM 1 Ethylbenzene ND 0.049 mg/Kg 1 2/22/2016 7:30:35 PM Xylenes, Total ND 0.097 mg/Kg 1 2/22/2016 7:30:35 PM Surr: 4-Bromofluorobenzene %Rec 112 80-120 2/22/2016 7:30:35 PM 23846 1

Refe	er to th	e QC Summary report and sample login checklis	st for flagg	ged 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 Page 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

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

#### **Analytical Report**

#### Lab Order 1602771

Date Reported: 2/25/2016

## Hall Environmental Analysis Laboratory, Inc.

#### **CLIENT:** Blagg Engineering Client Sample ID: TH2 @ (6', 8', 9.5') **Project:** GCU #230E Collection Date: 2/16/2016 10:04:00 AM Lab ID: 1602771-006 Matrix: SOIL Received Date: 2/17/2016 7:52:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S		14 B M	Analyst	KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	2/23/2016 2:21:40 PM	23841
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	2/23/2016 2:21:40 PM	23841
Surr: DNOP	98.1	70-130	%Rec	1	2/23/2016 2:21:40 PM	23841
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	2/22/2016 7:54:07 PM	23846
Surr: BFB	93.6	66.2-112	%Rec	1	2/22/2016 7:54:07 PM	23846
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.046	mg/Kg	1	2/22/2016 7:54:07 PM	23846
Toluene	ND	0.046	mg/Kg	1	2/22/2016 7:54:07 PM	23846
Ethylbenzene	ND	0.046	mg/Kg	1	2/22/2016 7:54:07 PM	23846
Xylenes, Total	ND	0.093	mg/Kg	1	2/22/2016 7:54:07 PM	23846
Surr: 4-Bromofluorobenzene	113	80-120	%Rec	1	2/22/2016 7:54:07 PM	23846

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

100			00	,
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho

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 S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 11 J
- Ρ Sample pH Not In Range
- **Reporting Detection Limit** RL
- Sample container temperature is out of limit as specified W

#### **Analytical Report**

#### Lab Order 1602771

Date Reported: 2/25/2016

1

## Hall Environmental Analysis Laboratory, Inc.

# CLIENT: Blagg Engineering Client Sample ID: TH3 @ (6', 8', 11') Project: GCU #230E Collection Date: 2/16/2016 12:12:00 PM Lab ID: 1602771-007 Matrix: SOIL Received Date: 2/17/2016 7:52:00 AM Analyses Result PQL Qual Units DF Date Analyzed Batch

r mary ses	A LOUGHE	- 2- 2 au	u ourio		a new ranning men	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst:	KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	2/23/2016 2:43:24 PM	23841
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	2/23/2016 2:43:24 PM	23841
Surr: DNOP	108	70-130	%Rec	1	2/23/2016 2:43:24 PM	23841
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	2/22/2016 8:17:31 PM	23846
Surr: BFB	94.7	66.2-112	%Rec	1	2/22/2016 8:17:31 PM	23846
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.047	mg/Kg	1	2/22/2016 8:17:31 PM	23846
Toluene	ND	0.047	mg/Kg	1	2/22/2016 8:17:31 PM	23846
Ethylbenzene	ND	0.047	mg/Kg	1	2/22/2016 8:17:31 PM	23846
Xylenes, Total	ND	0.095	mg/Kg	1	2/22/2016 8:17:31 PM	23846
Surr: 4-Bromofluorobenzene	115	80-120	%Rec	1	2/22/2016 8:17:31 PM	23846

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
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 7 of 1
	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

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602771 25-Feb-16

Client: Project:	Blagg GCU	Engineering #230E							
Sample ID Client ID: Prep Date: Analyte	MB-23908 PBS 2/23/2016	SampType: N Batch ID: 2 Analysis Date: Result PQL	ABLK 23908 2/23/2016 SPK value	Tes F SPK Ref Val	tCode: EPA Method RunNo: 32364 SeqNo: 989481 %REC LowLimit	I 300.0: Anion Units: mg/M HighLimit	s (g %RPD	RPDLimit	Qual
Chloride		ND 1.	5		and the second second				
Sample ID Client ID:	LCS-23908 LCSS	SampType: L Batch ID: 2	.CS 3908	Tes F	tCode: EPA Method RunNo: 32364	300.0: Anion	S		
Prep Date:	2/23/2016	Analysis Date:	2/23/2016	5	SeqNo: 989482	Units: mg/K	g		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	1. 1. 1. 1. 1.	14 1.5	5 15.00	0	96.0 90	110		1000	

- \* 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 8 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602771 25-Feb-16

Client: Project:	Blagg Engin GCU #230E	eering									
Sample ID LCS Client ID: LCS Prep Date: 2/19	-23841 S 9/2016 Ar	SampType Batch ID alysis Date	: LCS : 23841 : 2/23/	2016	Tes	stCode: E RunNo: 3 SeqNo: 9	PA Method 2326 88157	8015M/D: Die Units: mg/K	esel Rang	e Organics	
Analyte	F	Result P	QL SI	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic Surr: DNOP	cs (DRO)	55 5.5	10	50.00 5.000	0	110 110	65.8 70	136 130			
Sample ID LCS Client ID: LCS Prep Date: 2/2	-23882 S 3/2016 An	SampType Batch ID alysis Date	: LCS 23882 2/23/	2016	Tes F	tCode: E RunNo: 3 SeqNo: 9	PA Method 2326 88158	8015M/D: Die Units: %Ree	esel Rang	e Organics	
Analyte Surr: DNOP	F	tesult P 5.3	QL SF	PK value 5.000	SPK Ref Val	%REC 106	LowLimit 70	HighLimit 130	%RPD	RPDLimit	Qual
Sample ID MB-2 Client ID: PBS Prep Date: 2/19	23841 9/2016 An	SampType Batch ID: alysis Date:	: MBLK 23841 2/23/2	2016	Tes F	tCode: El RunNo: 3 SeqNo: 9	PA Method 2326 88159	8015M/D: Die Units: mg/K	esel Range	e Organics	
Analyte	R	esult P	QL SF	K value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic Motor Oil Range Organ Surr: DNOP	s (DRO) nics (MRO)	ND ND 11	10 50	10.00		114	70	130			
Sample ID MB-2	3882	SampType	MBLK		Tes	Code: El	A Method	8015M/D: Die	sel Range	Organics	57 1 4
Client ID: PBS Prep Date: 2/23	/2016 An	Batch ID: alysis Date:	23882	2016	F	tunNo: 3	2326 88160	Units: %Rec			
Analyte	R	esult P	QL SP	K value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sur: DNOP		9.4		10.00		94.0	70	130			

- \* 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 9 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602771 25-Feb-16

Client:Blagg HProject:GCU #	Engineering 230E		
Sample ID MB-23846 Client ID: PBS Prep Date: 2/19/2016	SampType: MBLK Batch ID: 23846 Analysis Date: 2/22/2016	TestCode: EPA Method RunNo: 32301 SeqNo: 987802	8015D: Gasoline Range Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Sasoline Range Organics (GRO) Surr: BFB	ND 5.0 930 100	0 93.3 66.2	112
Sample ID LCS-23846 Client ID: LCSS	SampType: LCS Batch ID: 23846	TestCode: EPA Method RunNo: 32301	8015D: Gasoline Range
Prep Date: 2/19/2016	Analysis Date: 2/22/2016	SeqNo: 987805	Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Basoline Range Organics (GRO)	27 5.0 25.0	0 0 107 79.6	122
Surr: BFB	990 100	99.3 66.2	112

- \* 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 10 of 11

## Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: GCU #230E

Sample ID MB-23846	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batc	h ID: 23	846	F	RunNo: 3	2301				
Prep Date: 2/19/2016	Analysis I	Date: 2	/22/2016	:	SeqNo: 9	87873	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050	S	1-				12/2 19		
foluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1	34	1.000	A DAY	114	80	120	Contraction of	1000	
Sample ID LCS-23846	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 23	846	F	RunNo: 3	2301				
Prep Date: 2/19/2016	Analysis [	Date: 2/	22/2016	5	SeqNo: 9	87880	Units: mg/h	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120	27601	11.1	19.00
oluene	1.0	0.050	1.000	0	104	80	120			
thylbenzene	1.0	0.050	1.000	0	103	80	120			
kylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	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
- 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 11 of 11

WO#: 1602771 25-Feb-16

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmenial A Albuq TEL: 505-345-3975 I Website: www.hall	4901 Huwkin pierque, NM 8 FAX: 505-345- leuvironmental	a NE 7109 San 4107 Leom	nple Log-In C	heck List
Client Name BLAGG	Work Order Number:	1602771		ReptNo:	1
Received by/date: AT 0	2/17/16				
Logged By: Michelle Garcia 2/	17/2016 7:52:00 AM		-Minul G	anie)	Section 1
Completed By: Michelle Garcia 2/	18/2016 1:38:15 PM		minul G	anni	
Reviewed By:	al alla				
Chain of Custody	06114114		and a second second second		
1 Custody seals intact on sample boltles?		Yes	No 🖂	Not Present 🗹	
2 le Chain of Custody complete?		Yes 🔽	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗆		
5. Were all samples received at a temperature of	>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 ONG) properly r	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 П	No M	# of preserved	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	for pH:	r >12 unless noted
13. Are matrices correctly identified on Chain of Cu	stody?	Yes 🗹	No 🗆	Adjusted?	
14, is it clear what analyses were requested?	THE REAL	Yes M	No L	Checked bur	
<ol> <li>Were all holding times able to be met? (If no, notify customer for authorization.)</li> </ol>		Yes 🗹	No L	Checked by	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this	order?	Yes	No 🗆	NA 🗹	
Percen Notifer	Date		1.00		
By Whom: Regarding:	Via:	] eMail 🔲	Phone 🗌 Fax	In Person	
Client Instructions:					
17. Additional remarks:					
18. Cooler Information Cooler No Temp °C Condition Seal	Intact Seal No S	eal Date	Signed By		

C	hain	-of-Ci	ustody Record	Turn-Around	Time:															
lient:	BLACE	ENER	BP AMERICA	Standard	C Rush			120		F	1A		E	N			NP	1EI	ATA	
lailing	Address	10	BOX 87	Project Name	a: 1 # 2 <sup>-</sup>	30€	www.hallenvironmental.com								CT					
	RLOOP	THEL	D, NM 87413	Project #:				4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107												
hone	#: (5	(05)	320-1183									A	nal	ysis	Req	uest	t			
A/QC Package:				Project Manager: 94.0				(Gas only)	O / MRO			IMS)		PO4,SO4)	PCB's			(0.0	STR.	
CCredi	tation AP	Othe	er	Sampler: On Ice:	JETT De Yes	BLACE		TPH	O/DF	8.1)	4.1)	3270 S		3,NO2,	8082			30	npa	N)
1 EDD	(Type)	1	1	Sample Tem	perature:	1.0		BE +	(GR	d 41	d 50	) or 8	tals	NO	des	1	VOA	W W	CO	Yor
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	3TEX + WH	<b>3TEX + MT</b>	<b>ГРН 8015B</b>	<b>TPH (Metho</b>	EDB (Metho	AH's (8310	<b>RCRA 8 Me</b>	vnions (F,CI	081 Pestici	260B (VOA	270 (Semi-	CAK CALID	# 3 87.	GRAB Star
16/16	1236	SOL	THILCII	402-1	COCL	-051	V	ш	V	F	ш	a	ĽĽ.	A	8	00	00	1	-	X
16/16	1223	SUIL	THZEII	402-1	Cari	-002	1		V					-				1		V
16/16	1212	5012	THBCH	402-1	Cool	- 003	V		V						-			V	+	
16/16	1313	SOIL	TH4 C 11.5'	402 - 1	COOL	-004	V		Y									×	-	V
16/K	1341	SUL	TH5 @ 11.5'	402-1	COOL	- 005	V		V									1	-	
KK	1004	SOIL	THAC (6'8 9.5')	402-1	COOL	-001	V		V	-								v	17	Y
KK	1212	SUIL	TH3 @ (6',8',11',	) 402 - (	COOL	-007	1		V		_							+	V	
ate:	Time:	Relinquish	ied by: Blagg	Received by:	thele	Date Time Z/14/14 /1630	Ren	nark:	s: 10	2	Jo	14	- 0	A	Tu	-7	70	BI	0	
	Time: 1817	She	attu palle	Received by	mil	Date Time 02/17/16 07.52	1	ID	Ŧ		IM	05	EU 6H	QF	EC	k	REF	#	: P-	-273

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



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

February 18, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU #230E

OrderNo.: 1602667

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/17/2016 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

Analytical	Report
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Lab Order 1602667

Date Reported: 2/18/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Blagg Engineering	1		(	lient Sampl	le ID: TH	H 4 @ (6',8',10')				
Project:	GCU #230E				Collection	Date: 2/1	16/2016 1:06:00 PM				
Lab ID:	1602667-001	Matrix:		Received Date: 2/17/2016 7:50:00 AM							
Analyses	States Alice	Result	PQL	Qual	Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANIC	s		1.1		Analyst	КЈН			
Diesel Ra	ange Organics (DRO)	1200	100		mg/Kg	10	2/17/2016 12:02:13 PM	23771			
Motor Oil	Range Organics (MRO)	600	510		mg/Kg	10	2/17/2016 12:02:13 PM	23771			
Surr: D	DNOP	0	70-130	S	%Rec	10	2/17/2016 12:02:13 PM	23771			
EPA MET	HOD 8015D: GASOLINE R	ANGE					Analyst:	NSB			
Gasoline	Range Organics (GRO)	120	4.3		mg/Kg	1	2/17/2016 11:46:20 AM	A32204			
Surr: E	BFB	1220	66.2-112	S	%Rec	1	2/17/2016 11:46:20 AM	A32204			
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB			
Benzene		ND	0.043		mg/Kg	1	2/17/2016 11:46:20 AM	B32204			
Toluene		ND	0.043		mg/Kg	1	2/17/2016 11:46:20 AM	B32204			
Ethylbenz	zene	ND	0.043		mg/Kg	1	2/17/2016 11:46:20 AM	B32204			
Xylenes,	Total	0.71	0.086		mg/Kg	1	2/17/2016 11:46:20 AM	B32204			
Surr: 4	-Bromofluorobenzene	158	80-120	S	%Rec	1	2/17/2016 11:46:20 AM	B32204			

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

<b>Oualifiers</b> :	Value exceeds Maximu	m Contaminant Level
Annumera.	I MINE CITCECORD TURNITURE	HII GOLISMITTINGITS LOOT ST.

- 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 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analy	Il Environmental Analysis Laboratory, Inc.         ENT: Blagg Engineering       Client Sam         ect: GCU #230E       Collection         ID: 1602667-002       Matrix: SOIL         yses       Result       PQL Qual Units									
CLIENT: Blagg Engineering Project: GCU #230E	Matrice	I 5 @ (6',8',10') 6/2016 1:37:00 PM								
Lab ID: 1602667-002	Matrix:	SOIL		Date: 2/17/2016 7:50:00 AM						
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch			
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S				Analyst	КЈН			
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/17/2016 12:24:45 PM	23771			
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/17/2016 12:24:45 PM	23771			
Surr: DNOP	80.8	70-130		%Rec	1	2/17/2016 12:24:45 PM	23771			
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst:	NSB			
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/17/2016 12:09:59 PM	A32204			
Surr: BFB	100	66.2-112		%Rec	1	2/17/2016 12:09:59 PM	A32204			
EPA METHOD 8021B: VOLATILES						Analyst:	NSB			
Benzene	ND	0.046		mg/Kg	1	2/17/2016 12:09:59 PM	B32204			
Toluene	ND	0.046		mg/Kg	1	2/17/2016 12:09:59 PM	B32204			
Ethylbenzene	ND	0.046		mg/Kg	1	2/17/2016 12:09:59 PM	B32204			
Xylenes, Total	ND	0.093		mg/Kg	1	2/17/2016 12:09:59 PM	B32204			
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	2/17/2016 12:09:59 PM	B32204			

**Analytical Report** 

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	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 .
	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	t as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1602667 18-Feb-16

Client:Blagg EProject:GCU #2	Engineering 230E	
Sample ID MB-23771	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 23771	RunNo: 32179
Prep Date: 2/17/2016	Analysis Date: 2/17/2016	SeqNo: 984150 Units: mg/Kg
Analyte	Result PQL SPK value S	PK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qua
Diesel Range Organics (DRO)	ND 10	
Notor Oil Range Organics (MRO)	ND 50	
Surr: DNOP	7.3 10.00	73.4 70 130
Sample ID LCS-23771	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 23771	RunNo: 32179
Prep Date: 2/17/2016	Analysis Date: 2/17/2016	SeqNo: 984152 Units: mg/Kg
Analyte	Result PQL SPK value SI	PK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qua
Diesel Range Organics (DRO)	39 10 50.00	0 78.8 65.8 136
Surr: DNOP	3.7 5.000	73.3 70 130
Sample ID MB-23740	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 23740	RunNo: 32199
Prep Date: 2/15/2016	Analysis Date: 2/17/2016	SeqNo: 984257 Units: %Rec
Analyte	Result PQL SPK value SF	PK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.7 10.00	96.8 70 130
Sample ID LCS-23740	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 23740	RunNo: 32199
Prep Date: 2/15/2016	Analysis Date: 2/17/2016	SeqNo: 984258 Units: %Rec
Analyte	Result PQL SPK value SF	PK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.3 5.000	85.9 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
- 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

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				-
Hall	Environmental	Analysis	Laboratory.	Inc.

WO#: 1602667

18-Feb-16

Client: Project:	Blagg En GCU #23	gineering 80E			Luck						
Sample ID Client ID: Prep Date:	SampType: MBLK Batch ID: A32204 Analysis Date: 2/17/2016			Tes F	tCode: El RunNo: 3 SeqNo: 9	PA Method 2204 84873	d 8015D: Gasoline Range Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	ND 920	5.0	1000		92.4	66.2	112			
Sample ID Client ID: Prep Date:	2.5UG GRO LCS LCSS	SampT Batch Analysis D	ype: LC ID: A3 ate: 2/	S 2204 17/2016	Tes F	tCode: EF RunNo: 32 SeqNo: 98	PA Method 2204 84874	8015D: Gaso Units: mg/K	line Rang	e	The second
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	79.6	122				
Surr: BFB	980		1000		98.4	66.2	112				

- \* 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 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1602667 18-Feb-16

Client:	Blagg Engineering	
Project:	GCU #230E	

Sample ID 5ML RB	Samp	Type: M	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Bato	h ID: B	32204	F	RunNo: 3	2204				
Prep Date:	Analysis	Date: 2	/17/2016	5	SeqNo: 9	84890	Units: mg/l	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050		and the second						
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenz	zene 1.1		1.000		111	80	120			
Sample ID 100NG B	TEX LCS Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles	2000	_
Client ID: LCSS	Batc	h ID: B3	2204	F	RunNo: 3	2204				
Prep Date:	Analysis I	Date: 2/	17/2016	S	SeqNo: 9	84891	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.4	80	120		2.2	
Toluene	1.1	0.050	1.000	0	107	80	120			
thylbenzene	1.1	0.050	1.000	0	108	80	120			
(ylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenz	ene 1.1		1.000		112	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
- 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

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Webstte: www.hal	Analysis Lab 4901 Haw guerque, NN FAX: 505-34 lenvironmen	oratory kins NE 187109 15-4107 tal.com	Sam	ple Log-In Check List
Client Name: BLAGG	Work Order Number:	1602667			RcptNo: 1
Received by/date: AT 02/17/16					
Logged By: Anne Thorne 2/	17/2016 7:50:00 AM		am	An	_
Completed By: Anne Thorne 2/1	17/2016		am	1 Am	
Reviewed By:	2/17/16		- Contra		
Chain of Custody	c/r.y.				
1. Custody seals intact on sample bottles?		Yes 🗆	N	•	Not Present
2. Is Chain of Custody complete?		Yes 🗹	N	•	Not Present
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the samples?		Yes 🗹	N	lo 🗌	
5. Were all samples received at a temperature of	>0° C to 6.0°C	Yes 🗹	N	. 🗆	
6. Sample(s) in proper container(s)?		Yes 🗹	N	•	
7. Sufficient sample volume for indicated test(s)?		Yes 🗹	N	•	
8. Are samples (except VOA and ONG) properly p	reserved?	Yes 🗹	N		
9. Was preservative added to bottles?		Yes 🗌	N		NA 🗆
10. VOA vials have zero headspace?		Yes 🗌	N		No VOA Vials
11. Were any sample containers received broken?		Yes	N	•	# of preserved
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	N	•	for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Cus	stody?	Yes 🗹	N		Adjusted?
14. Is it clear what analyses were requested?		Yes 🗹	N		Checked but
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	N		
pecial Handling (if applicable)					
6. Was client notified of all discrepancies with this	order?	Yes 🗆	N		NA 🗹
Person Notified: By Whom: Regarding: Client Instructions:	Date Via:	] eMail [	] Phone [	] Fax	In Person
17. Additional remarks:				-	
8. <u>Cooler Information</u> Cooler No Temp °C Condition Seal In	ntact Seal No S	eal Date	Signed	By	
1 1.0 Good Yes			- ginad	-	

C ient: ailing	hain Buck Address	-of-Cu	BOX 87	Turn-Around	Time: Rust	5AME DAY # 230E		HALL ENVIRONMEN ANALYSIS LABORAT www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel 505-345-3975 Fox 505-345-4407								<b>1EN</b> <b>RAT</b>	TA	L XY		
	51001	MF/EL	270-1183	Project #:					Te	el. 50	5-34	5-397	5	Fax	505	-345	-410	7		
nail or VQC F	Fax#: J Package: dard	FEFF N	Level 4 (Full Validation)	Project Manager: JEFF BUAGG			<del>(8</del> 021B)	Gas only)	(Gas only) (O / MRO)			(SIMI	PO4,SO4)	PCB's	ues	t			¥	
:credit	tation AP	D Othe	r	Sampler:	JER	BLAGE	5	H	TPH (	0/DR	8.1)	4.1)	01/2	,NO2,	8082					POSTI N)
EDD )ate	(Type)	Matrix	Sample Request ID	Sample Tem p> 17 14 Container Type and # Messile A	Preservative Type	HEAL!	lo.	BTEX + MTBE	BTEX + MTBE +	<b>ГРН 8015B (GR</b>	<b>TPH (Method 41</b>	EDB (Method 50	AHS (8310 OF 0	vnions (F,CI,NO <sub>3</sub>	081 Pesticides /	260B (VOA)	270 (Semi-VOA			3 PT. CDM
16/16	1306	1301 NV	TH4 C6', 8', 10'	) 402-1	C002		201	~		1	-				8	00	8			$\checkmark$
16/15	1337	50/L 13337 72-	TH5 C (6', 8', 10'	) 40z-1	COOL		202	>		~										1
te: 14/16 te:	Time: 1020 Time:	Relinquish	Bligg ad by: Hbeb	Received by: Received by:	phet	Date T 2/14/16 Date T 02/17	ime 1630 ime 19	Ren	narks	SENTRE	9,0	57	GICE EVE	En	OJRE 05P	ECTO	24	70	BP.	

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



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

February 26, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 230 E

OrderNo.: 1602A41

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/25/2016 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

Hali Environmental Analys	sis Labora	itory, Inc.		_	Date Reported: 2/26/201	16
CLIENT: Blagg Engineering Project: GCU 230 E Lab ID: 1602A41-001	Matrix:	SOIL	Client Samp Collection	e ID: So Date: 2/2 Date: 2/2	uth Wall 3-pt (6'-8'-11' 24/2016 2:37:00 PM 25/2016 7:30:00 AM	)
Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	LGT
Chloride	ND	30	mg/Kg	20	2/25/2016 10:33:01 AM	23953
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	KJH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	2/25/2016 10:06:16 AM	23933
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	2/25/2016 10:06:16 AM	23933
Surr: DNOP	103	70-130	%Rec	1	2/25/2016 10:06:16 AM	23933
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	2/25/2016 1:08:30 PM	23925
Surr: BFB	94.3	66.2-112	%Rec	1	2/25/2016 1:08:30 PM	23925
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.045	mg/Kg	1	2/25/2016 1:08:30 PM	23925
Toluene	ND	0.045	mg/Kg	1	2/25/2016 1:08:30 PM	23925
Ethylbenzene	ND	0.045	mg/Kg	1	2/25/2016 1:08:30 PM	23925
Xylenes, Total	ND	0.090	mg/Kg	1	2/25/2016 1:08:30 PM	23925
Surr: 4-Bromofluorobenzene	112	80-120	%Rec	1	2/25/2016 1:08:30 PM	23925

#### 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	
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	rage 1015
	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 limi	t as specified

**Analytical Report** 

Lab Order 1602A41

WO#: 1602A41 26-Feb-16

## Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: GCU 230 E

Sample ID MB-23953 Client ID: PBS	SampType: MBLK Batch ID: 23953	TestCode: EPA Method RunNo: 32430	300.0: Anions	
Prep Date: 2/25/2016	Analysis Date: 2/25/2016	SeqNo: 991759	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-23953	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 23953	RunNo: 32430		
Prep Date: 2/25/2016	Analysis Date: 2/25/2016	SeqNo: 991760	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
chloride	14 15 15.00	0 95.3 90	110	

- \* 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 2 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602A41 26-Feb-16

Client: Blagg Project: GCU 2	Engineering 230 E									
Sample ID LCS-23933 Client ID: LCSS	SampT Batch	ype: LC	S 933	Tes	tCode: E RunNo: 3	PA Method 2388	8015M/D: Di	esel Rang	e Organics	
Prep Date: 2/25/2016	Analysis D	ate: 2	25/2016	S	SeqNo: 9	90382	Units: mg/H	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	65.8	136			
Surr: DNOP	5.0		5.000		99.0	70	130	1.0		
Sample ID MR 22022	SamnT	VDO: ME		Tes	Code: El	PA Mothod	8015M/D: Di	osol Pana	o Organice	

Sample ID MB-23933	Sampl	ype: ME	SLK	les	tCode: E	PA Method	8015M/D: DI	esel Rang	e Organics	
Client ID: PBS	Batch	n ID: 23	933	F	RunNo: 3	2388				
Prep Date: 2/25/2016	Analysis D	Date: 2/	25/2016	5	SeqNo: 9	90383	Units: mg/M	(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	10		10.00		103	70	130			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- 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 3 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1602A41 26-Feb-16

Client: Blagg Er Project: GCU 23	gineering ) E	
Sample ID MB-23925	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 23925	RunNo: 32403
Prep Date: 2/24/2016	Analysis Date: 2/25/2016	SeqNo: 991237 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref	Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 930 1000	92.8 66.2 112
Sample ID LCS-23925	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 23925	RunNo: 32403
Prep Date: 2/24/2016	Analysis Date: 2/25/2016	SeqNo: 991238 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref	Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	26 5.0 25.00 0	0 105 79.6 122
Surr: BFB	970 1000	97.3 66.2 112
Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: R32403	RunNo: 32403
Prep Date:	Analysis Date: 2/25/2016	SeqNo: 991252 Units: %Rec
Analyte	Result PQL SPK value SPK Ref	Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	930 1000	93.3 66.2 112
Sample ID 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: R32403	RunNo: 32403
Prep Date:	Analysis Date: 2/25/2016	SeqNo: 991253 Units: %Rec
Analyte	Result PQL SPK value SPK Ref	Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	1000 1000	102 66.2 112

- \* 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 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1602A41

26-Feb-16

Client:	Blagg Engineering
Project:	GCU 230 E

Sample ID MB-23925	Samp	Type: MI	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles				
Client ID: PBS	Batc	h ID: 23	925	F	RunNo: 32403							
Prep Date: 2/24/2016	Analysis I	Date: 2	/25/2016	5	SeqNo: 9	91270	Units: mg/ł	٢g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.050		1. 1. 1. 1.				1.1				
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
Xylenes, Total	ND	0.10										
Surr: 4-Bromofluorobenzene	1.1		1.000	a bibbo	111	80	120		C. Marcine			
Sample ID LCS-23925	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles				
Client ID: LCSS	Batc	h ID: 23	925	F	RunNo: 3	2403						
Prep Date: 2/24/2016	Analysis [	Date: 2/	25/2016	S	SeqNo: 9	91271	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.0	0.050	1.000	0	100	80	120					
foluene	1.0	0.050	1.000	0	104	80	120					
Ethylbenzene	1.0	0.050	1.000	0	104	80	120					
Kylenes, Total	3.2	0.10	3.000	0	105	80	120					
Surr: 4-Bromofluorobenzene	1.2		1.000		116	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
- 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 5 of 5

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-39751 Website: www.hali	Analysis 4901 E querque, FAX: 50 lenviron	Laboratory Iawkins NE NM 87109 5-345-4107 mental.com	San	nple Log-In Check List
Client Name: BLAGG	Work Order Number:	1602A4	11		RcptNo: 1
Received by/date: CM02/25/16					
Logged By: Anne Thoma 2/2	5/2016 7:30:00 AM		4	me A-	-
Completed By: Anne Thome 2/2	5/2016		4	me An	_
Reviewed By: 07.1	25/16				
Chain of Custody	25				
1. Custody seals intact on sample bottles?	~	Yes [		No 🗌	Not Present
2. Is Chain of Custody complete?		Yes &	2	No 🗆	Not Present
3. How was the sample delivered?		Courie	c i		
Log In					
4. Was an attempt made to cool the samples?		Yes [		No 🗆	
5. Were all samples received at a temperature of >	>0° C to 6.0°C	Yes 🖌		No 🗆	
6. Sample(s) in proper container(s)?		Yes B		No 🗆	
7. Sufficient sample volume for indicated test(s)?		Yes 5		No 🗌	
8. Are samples (except VOA and ONG) properly pro	eserved?	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
12 Doos nanequark match bottle ishels?		Van M			bottles checked for pH:
(Note discrepancies on chain of custody)		103 12			(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Cust	tody?	Yes	1	to 🗆	Adjusted?
14. Is it clear what analyses were requested?		Yes V	9 1	No 🗆	
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	9 1	<b>1</b> 0 ∐	Checked by:
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this o	rder?	Yes [	1 [	lo 🗆	NA 🗹
Person Notified: By Whom:	Date Via:	eMail	Phone	Fax	In Person
Regarding: Client Instructions:				i mini	
17. Additional remarks:					
18. <u>Cooler Information</u> <u>Cooler No</u> Temp <sup>o</sup> C Condition Seal Int 1 1.2 Good Yes	tact Seal No Se	al Date	Signe	d By	

C lient: lailing hone	Hain- BP / BLAG Address	-of-CU AMERIO 6 ENO	A WEERNG 2D-1183	Turn-Around  Standard  Project Name  C  Project #:	Time: <b>X</b> Rush e: 2023	ASAP SAME DAY OE		49 Te	01 F	H lawk	HA WWW ins N 45-3	LL w.hal NE - 975	Ilenv Alt	NV SIS vironi ouque Fax vsis	/IF 5 L ment erqu 505- Reg	tal.co	M 87	7	NT	AL	Y
A/QC I	Il or Fax#: C Package: tandard		Project Manager: J- BLAGG Sampler: J- BLAGG				PH (Gas only)	/ DRO / MRO)	()	1)	70 SIMS)		102,PO4,SO4)	082 PCB's						0	
1 EDD Date	(Type) Time	Matrix	Sample Request ID	Sample Tem Sample Tem Ar 62/25//+ Container Type and # Meat Kot	Preservative Type	HEAL NO	BTEX + WIBE + T	BTEX + MTBE + T	TPH 8015B (GRO	TPH (Method 418.	EDB (Method 504.	PAH's (8310 or 82	RCRA 8 Metals	Anions (F,CI,NO <sub>3</sub> ,N	3081 Pesticides / 8	3260B (VOA)	3270 (Semi-VOA)	CHLORIDE			Air Bubbles (Y or N
<u>Y</u> [6	1437	SOIL		4 02 × 1	COOL		×		×									×			
											+										
ate: 14/2016 ate:	Time: Time: Time: 1814 necessary,	Relinquish Relinquish	ed by: 1 Blogg ed by: buttullally mitted to Hali Environmental may be subc	Received by: Received Dy Received Dy	y Waelo	Date Time <b>3</b> /34/14 1409 Date Time <b>75/16 0730</b> This serves as notice of this	Rer	mark	s: 1	BILL	- B tact D:	P V	STE M(	VE	M	osc. QFI	AL			+	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
the stant st

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

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-138 Revised August 1, 2011 \*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
1. Generator Name and Address: BP America Production Co. 200 Energy Ct. Farmington, NM 87401
2. Originating Site: Gallegos Canyon Unit 230E Paykey: VHIXONEVRM
3. Location of Material (Street Address, City, State or ULSTR): QRT/QRT: SW/SE Unit: O Section: 23 T28N R12W
4. Source and Description of Waste: Excavated hydrocarbon impacted soil/hydroexcavated impacted soil 2/21/10-12000
Estimated Volume 100/30 yd <sup>3</sup> /bbls Known Volume (to be entered by the operator at the end of the haul) (yd <sup>3</sup> bbl
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Steve Moskal (Confide), representative or authorized agent for certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1981 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non- exempt waste. Operator Use Only: Waste Acceptance Frequency Monthly Develop Per Load
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous be characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Chec the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS Steve Moska (Gradiente Company), representative for testing/sign the Generator Waste Testing Certification.
do hereby certify that presentative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
trike Crossfire
CD Permitted Surface Waste Management Facility
Name and Facility Permit #: #: Industrial Ecosystems Inc., JFJ Waste Management Facility (JFJ), Permit NM-01-0010B
Address of Facility: #49 CR 3150 Aztec, NM. 87410
Method of Treatment and/or Disposal:
Evaporation Injection Treating Plant Landfarm Landfill Other
aste Acceptance Status:
UNT NAME: TAMER Becry TITLE: Clert DATE: 2-24-16
GNATURE: TELEPHONE NO.: 505-632-1782
Surface Waste Management Facility Authorized Agent