

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Pritchard SWD Oil Recovery Facility	Facility Type: Salt water disposal site
Surface Owner: Federal	Mineral Owner: Federal
API No. 3004528351	

LOCATION OF RELEASE

Unit Letter D	Section 34	Township 31N	Range 9W	Feet from the 615	North/South Line North	Feet from the 1,840	East/West Line West	County: San Juan
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Latitude 36.85962 Longitude 107.773

NATURE OF RELEASE

Type of Release: condensate and lube oil	Volume of Release: 45 bbl	Volume Recovered: 20 bbl
Source of Release: 1,000 bbl tank	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 10/7/2013
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell	
By Whom? Courtney Cochran	Date and Hour: 10/8/2013; 9:00 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

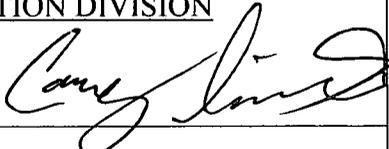
If a Watercourse was Impacted, Describe Fully.*

RCVD MAR 24 '14
OIL CONS. DIV.
DIST. 3

Describe Cause of Problem and Remedial Action Taken.* Automation controlling tank levels and pumps was disabled due to construction activities on the site. Produced water from four wells continued flowing to the tank, causing it to overflow. All oil and condensate was confined to the bermed containment area and 20 bbl was recovered with a vacuum truck. Initial auger sampling indicated no impacts below three feet.

Describe Area Affected and Cleanup Action Taken.* Storage tank overfilled and ran into the bermed containment area. Initial investigation showed impacts were limited to three feet below the surface. Impacted soil was excavated and taken to the IEI landfarm for treatment. Approximately 90 cubic yards were hauled to the land farm. Excavated area was backfilled with clean soil.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jeff Peace	Approved by Environmental Specialist: 	
Title: Field Environmental Advisor	Approval Date: 5/21/14	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: March 18, 2014	Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

NCS 141 415 2336

BP AMERICA PRODUCTION COMPANY

RELEASE INVESTIGATION & REMEDIATION OF TANK OVERFLOW

Pritchard SWD Facility

API 30-045-28351

Legal Description: (C) Sec. 34 - T31N - R9W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. October 8, 2013: Blagg Engineering, Inc. (BEI) notified that a release had occurred at the Pritchard SWD Facility. Contact made with construction crew for NM One-Call instructions
2. October 9, 2013: An investigation of the extent of impacts from the release was conducted. Impacts were from overflow of floating produced oil from a water holding tank. Impacts were contained within the berm surrounding the tank battery. A hand auger was used to advance bore holes throughout the impacted area and collect soils samples for field (Organic Vapor Meter) and laboratory (Total Petroleum Hydrocarbons, BTEX and Chloride) analysis. Based on field observations, no impacts were found to extend deeper than 2- 3 feet vertically at any sample point (Summary Field Notes Attached).
3. October 12, 2013: Review of rush laboratory analytical results confirmed that impacts did not extend deeper than 2 – 3 feet below grade (Laboratory Test Results Attached).
4. November 15, 2013: Site remediation initiated using hydro-vac, hand tools and bobcat (sub-grade electric and flow lines restricted use of larger excavation equipment).
5. December 6, 2013: Site remediation completed. Approximately 90 cubic yards of impacted soil removed from site and transported to BP and JFJ Crouch Mesa Landfarm for final remediation.

Table 1

PRITCHARD SWD RELEASE INVESTIGATION
SUMMARY FIELD NOTES
OCTOBER 9, 2013

Sample ID	Field OVM PID (PPM)	Laboratory TPH (total in mg/Kg)	Laboratory BTEX (total in mg/Kg)	Laboratory Chloride (total in mg/Kg)
HA-1 @ 1.5 feet	46	--	--	--
HA-1 @ 3 feet	26.2	11	ND	ND
HA-1 @ 5 feet	6.5	ND	ND	ND
HA-2 @ 1.5 feet	267	--	--	--
HA-2 @ 3 feet	46.3	10	ND	ND
HA-2 @ 5 feet	9.8	--	--	--
HA-2 @ 7 feet	13.7	ND	ND	ND
HA-3 @ 2 feet	236	52	0.825	ND
HA-3 @ 5 feet	5.9	ND	ND	ND
HA-4 @ 2 feet	15.0	ND	ND	ND
HA-4 @ 5 feet	9.4	ND	ND	ND
HA-5 @ 2 feet	65.6	ND	ND	ND
HA-5 @ 5 feet	7.9	ND	0.2	ND
HA-6 @ 2 feet	31.8	ND	ND	ND
HA-6 @ 4.5 feet	14.6	ND	ND	ND

PRITCHARD SWD REMEDIATION

HA-5

Impacted Area from
Tank Overflow

HA = Hand

60 Feet

60 Feet

Google earth

1997

Imagery Date: 11/17/2013 36°51'35.94"N 107°46'13.76"W elev: 6075 ft eye alt: 6295 ft



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

October 15, 2013

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: Pritchard SWD

OrderNo.: 1310577

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/11/2013 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 www.hallenvironmental.com 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 qualifiers 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-1 @ 5'

Project: Pritchard SWD

Collection Date: 10/9/2013 4:41:00 PM

Lab ID: 1310577-001

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 1:21:10 PM	9782
Surr: DNOP	89.9	63-147		%REC	1	10/11/2013 1:21:10 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 12:21:32 PM	R14006
Surr: BFB	87.6	80-120		%REC	1	10/11/2013 12:21:32 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 12:21:32 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 12:21:32 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 12:21:32 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 12:21:32 PM	R14006
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/11/2013 12:21:32 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 1:30:39 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-2 @ 7'

Project: Pritchard SWD

Collection Date: 10/9/2013 5:03:00 PM

Lab ID: 1310577-002

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 1:43:07 PM	9782
Surr: DNOP	96.4	63-147		%REC	1	10/11/2013 1:43:07 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 12:50:05 PM	R14006
Surr: BFB	89.9	80-120		%REC	1	10/11/2013 12:50:05 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 12:50:05 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 12:50:05 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 12:50:05 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 12:50:05 PM	R14006
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/11/2013 12:50:05 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 1:43:04 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-3 @ 5'

Project: Pritchard SWD

Collection Date: 10/10/2013 9:50:00 AM

Lab ID: 1310577-003

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 2:05:09 PM	9782
Surr: DNOP	96.9	63-147		%REC	1	10/11/2013 2:05:09 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 1:18:37 PM	R14006
Surr: BFB	89.4	80-120		%REC	1	10/11/2013 1:18:37 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 1:18:37 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 1:18:37 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 1:18:37 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 1:18:37 PM	R14006
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/11/2013 1:18:37 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 1:55:29 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-4 @ 5'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:12:00 AM

Lab ID: 1310577-004

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 2:27:14 PM	9782
Surr: DNOP	94.6	63-147		%REC	1	10/11/2013 2:27:14 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 1:47:14 PM	R14006
Surr: BFB	88.8	80-120		%REC	1	10/11/2013 1:47:14 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 1:47:14 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 1:47:14 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 1:47:14 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 1:47:14 PM	R14006
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/11/2013 1:47:14 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 2:07:54 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-5 @ 5'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:37:00 AM

Lab ID: 1310577-005

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 2:49:22 PM	9782
Surr: DNOP	94.7	63-147		%REC	1	10/11/2013 2:49:22 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 2:15:52 PM	R14006
Surr: BFB	127	80-120	S	%REC	1	10/11/2013 2:15:52 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 2:15:52 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 2:15:52 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 2:15:52 PM	R14006
Xylenes, Total	0.20	0.10		mg/Kg	1	10/11/2013 2:15:52 PM	R14006
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	10/11/2013 2:15:52 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 2:45:08 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-6 @ 4.5'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:59:00 AM

Lab ID: 1310577-006

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 3:11:18 PM	9782
Surr: DNOP	95.1	63-147		%REC	1	10/11/2013 3:11:18 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 2:44:30 PM	R14006
Surr: BFB	92.9	80-120		%REC	1	10/11/2013 2:44:30 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 2:44:30 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 2:44:30 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 2:44:30 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 2:44:30 PM	R14006
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	10/11/2013 2:44:30 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 2:57:32 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310577

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9786	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	9786	RunNo:	14043					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	401631	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-9786	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	9786	RunNo:	14043					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	401632	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310577

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9782	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9782	RunNo:	13995					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	400588	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.3	63	147			

Sample ID	LCS-9782	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9782	RunNo:	13995					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	400589	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.2	77.1	128			
Surr: DNOP	4.4		5.000		88.9	63	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310577

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9772 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R14006	RunNo:	14006					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400836	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.4	80	120			

Sample ID	LCS-9772 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R14006	RunNo:	14006					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400837	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	74.5	126			
Surr: BFB	1000		1000		99.5	80	120			

Sample ID	MB-9772	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	9772	RunNo:	14006					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400847	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		88.4	80	120			

Sample ID	LCS-9772	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	9772	RunNo:	14006					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400848	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		99.5	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310577

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9772 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R14006		RunNo:	14006			
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400867		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-9772 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R14006		RunNo:	14006			
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400868		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.4	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	MB-9772		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	9772		RunNo:	14006			
Prep Date:	10/10/2013		Analysis Date:	10/11/2013		SeqNo:	400878		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-9772		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	9772		RunNo:	14006			
Prep Date:	10/10/2013		Analysis Date:	10/11/2013		SeqNo:	400879		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1310577**

RcptNo: **1**

Received by/date: *mg* **10/11/13**
 Logged By: **Michelle Garcia** **10/11/2013 10:40:00 AM**
 Completed By: **Michelle Garcia** **10/11/2013 10:55:21 AM**
 Reviewed By: *mg* **10/11/13**

Michelle Garcia
Michelle Garcia

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked for pH: (<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted?
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

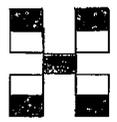
18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
 Mailing Address: P.O. Box 87
Bloomfield, NM 87413
 Phone #: 505-632-1199
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time: SAME DAY 10/11/2013
 Standard Rush
 Project Name: PRITCHARD SWD
 Project #:
 Project Manager: J. Blagg
 Sampler: J. Blagg
 On Ice: Yes No
 Sample Temperature: 10



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + THES (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MEC)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)	
9/9/13	1641	SOIL	HA-1 @ 5'	4oz x1	COOL	-001	X		X										X	
"	1703	"	HA-2 @ 7'	"	"	-002	X		X										X	
9/10/13	0950	"	HA-3 @ 5'	"	"	-003	X		X										X	
"	1012	"	HA-4 @ 5'	"	"	-004	X		X										X	
"	1037	"	HA-5 @ 5'	"	"	-005	X		X										X	
"	1059	"	HA-6 @ 4 1/2'	"	"	-006	X		X										X	

Date: 9/10/13	Time: 1251	Relinquished by: <u>Jeff Blagg</u>	Received by: <u>Christina Wheeler</u>	Date: 10/10/13	Time: 1251	Remarks: <u>Bill Blagg</u> <u>BP CONTACT: JEFF PEARE</u>
Date: 9/10/13	Time: 1800	Relinquished by: <u>Christina Wheeler</u>	Received by: <u>Mick G</u>	Date: 10/11/13	Time: 10:40	

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



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

October 15, 2013

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: Pritchard SWD

OrderNo.: 1310578

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/11/2013 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 www.hallenvironmental.com 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 qualifiers 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-1 @ 3'

Project: Pritchard SWD

Collection Date: 10/9/2013 4:35:00 PM

Lab ID: 1310578-001

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	11	10		mg/Kg	1	10/11/2013 3:55:28 PM	9782
Surr: DNOP	99.0	63-147		%REC	1	10/11/2013 3:55:28 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 4:01:13 PM	R14021
Surr: BFB	104	80-120		%REC	1	10/11/2013 4:01:13 PM	R14021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 4:01:13 PM	R14021
Toluene	ND	0.050		mg/Kg	1	10/11/2013 4:01:13 PM	R14021
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 4:01:13 PM	R14021
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 4:01:13 PM	R14021
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/11/2013 4:01:13 PM	R14021
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 5:38:49 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-2 @ 3'

Project: Pritchard SWD

Collection Date: 10/9/2013 4:56:00 PM

Lab ID: 1310578-002

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	10	9.9		mg/Kg	1	10/11/2013 4:17:32 PM	9782
Surr: DNOP	100	63-147		%REC	1	10/11/2013 4:17:32 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 5:31:52 PM	R14021
Surr: BFB	107	80-120		%REC	1	10/11/2013 5:31:52 PM	R14021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 5:31:52 PM	R14021
Toluene	ND	0.050		mg/Kg	1	10/11/2013 5:31:52 PM	R14021
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 5:31:52 PM	R14021
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 5:31:52 PM	R14021
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	10/11/2013 5:31:52 PM	R14021
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 5:51:13 PM	9786

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-3 @ 2'

Project: Pritchard SWD

Collection Date: 10/10/2013 9:45:00 AM

Lab ID: 1310578-003

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	32	10		mg/Kg	1	10/11/2013 4:39:28 PM	9782
Surr: DNOP	81.2	63-147		%REC	1	10/11/2013 4:39:28 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	20	5.0		mg/Kg	1	10/11/2013 7:02:51 PM	R14021
Surr: BFB	250	80-120	S	%REC	1	10/11/2013 7:02:51 PM	R14021
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 7:02:51 PM	R14021
Toluene	0.083	0.050		mg/Kg	1	10/11/2013 7:02:51 PM	R14021
Ethylbenzene	0.082	0.050		mg/Kg	1	10/11/2013 7:02:51 PM	R14021
Xylenes, Total	0.66	0.10		mg/Kg	1	10/11/2013 7:02:51 PM	R14021
Surr: 4-Bromofluorobenzene	123	80-120	S	%REC	1	10/11/2013 7:02:51 PM	R14021
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 6:03:37 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-4 @ 2'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:00:00 AM

Lab ID: 1310578-004

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/11/2013 5:01:46 PM	9782
Surr: DNOP	96.1	63-147		%REC	1	10/11/2013 5:01:46 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 4:28:21 PM	R14006
Surr: BFB	92.6	80-120		%REC	1	10/11/2013 4:28:21 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 4:28:21 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 4:28:21 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 4:28:21 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 4:28:21 PM	R14006
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	10/11/2013 4:28:21 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 6:16:02 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-5 @ 2'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:30:00 AM

Lab ID: 1310578-005

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/11/2013 5:23:49 PM	9782
Surr: DNOP	98.5	63-147		%REC	1	10/11/2013 5:23:49 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 4:56:58 PM	R14006
Surr: BFB	99.5	80-120		%REC	1	10/11/2013 4:56:58 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 4:56:58 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 4:56:58 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 4:56:58 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 4:56:58 PM	R14006
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	10/11/2013 4:56:58 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 6:28:26 PM	9786

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: HA-6 @ 2'

Project: Pritchard SWD

Collection Date: 10/10/2013 10:50:00 AM

Lab ID: 1310578-006

Matrix: MEOH (SOIL)

Received Date: 10/11/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2013 5:45:59 PM	9782
Surr: DNOP	94.3	63-147		%REC	1	10/11/2013 5:45:59 PM	9782
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2013 5:25:30 PM	R14006
Surr: BFB	79.4	80-120	S	%REC	1	10/11/2013 5:25:30 PM	R14006
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/11/2013 5:25:30 PM	R14006
Toluene	ND	0.050		mg/Kg	1	10/11/2013 5:25:30 PM	R14006
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2013 5:25:30 PM	R14006
Xylenes, Total	ND	0.10		mg/Kg	1	10/11/2013 5:25:30 PM	R14006
Surr: 4-Bromofluorobenzene	87.3	80-120		%REC	1	10/11/2013 5:25:30 PM	R14006
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	10/11/2013 6:40:51 PM	9786

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

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9786	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	9786	RunNo:	14043					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	401631	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-9786	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	9786	RunNo:	14043					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	401632	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578
 15-Oct-13

Client: Blagg Engineering
Project: Pritchard SWD

Sample ID	MB-9782	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9782	RunNo:	13995					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	400588	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.3	63	147			

Sample ID	LCS-9782	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9782	RunNo:	13995					
Prep Date:	10/11/2013	Analysis Date:	10/11/2013	SeqNo:	400589	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.2	77.1	128			
Surr: DNOP	4.4		5.000		88.9	63	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9772 MK		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R14006		RunNo:	14006				
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400836		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	880		1000		88.4	80	120				

Sample ID	LCS-9772 MK		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	R14006		RunNo:	14006				
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400837		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	74.5	126				
Surr: BFB	1000		1000		99.5	80	120				

Sample ID	MB-9772		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	9772		RunNo:	14006				
Prep Date:	10/10/2013		Analysis Date:	10/11/2013		SeqNo:	400847		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	880		1000		88.4	80	120				

Sample ID	LCS-9772		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	9772		RunNo:	14006				
Prep Date:	10/10/2013		Analysis Date:	10/11/2013		SeqNo:	400848		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1000		1000		99.5	80	120				

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R14021		RunNo:	14021				
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400893		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	1000		1000		101	80	120				

Sample ID	2.5UG GRO LCS		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	R14021		RunNo:	14021				
Prep Date:			Analysis Date:	10/11/2013		SeqNo:	400894		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.4	74.5	126				
Surr: BFB	1100		1000		109	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	1310578-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	HA-1 @ 3'	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400896	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	22.79	0	89.4	76	156			
Surr: BFB	1000		911.6		111	80	120			

Sample ID	1310578-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	HA-1 @ 3'	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400897	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	22.79	0	89.8	76	156	0.357	17.7	
Surr: BFB	1100		911.6		116	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-9772 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R14006	RunNo:	14006					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400867	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-9772 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R14006	RunNo:	14006					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400868	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.4	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	MB-9772	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	9772	RunNo:	14006					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400878	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-9772	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	9772	RunNo:	14006					
Prep Date:	10/10/2013	Analysis Date:	10/11/2013	SeqNo:	400879	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400919	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310578

15-Oct-13

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400919	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400920	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.0	80	120			
Toluene	0.96	0.050	1.000	0	95.8	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID	1310578-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	HA-2 @ 3'	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400923	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.050	0.8772	0	89.6	67.3	145			
Toluene	0.80	0.050	0.8772	0.01711	89.0	66.8	144			
Ethylbenzene	0.82	0.050	0.8772	0.01825	91.5	61.9	153			
Xylenes, Total	2.6	0.10	2.632	0.04088	97.1	65.8	149			
Surr: 4-Bromofluorobenzene	1.0		0.8772		118	80	120			

Sample ID	1310578-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	HA-2 @ 3'	Batch ID:	R14021	RunNo:	14021					
Prep Date:		Analysis Date:	10/11/2013	SeqNo:	400924	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.050	0.8772	0	85.9	67.3	145	4.26	20	
Toluene	0.77	0.050	0.8772	0.01711	85.5	66.8	144	3.91	20	
Ethylbenzene	0.79	0.050	0.8772	0.01825	87.5	61.9	153	4.30	20	
Xylenes, Total	2.5	0.10	2.632	0.04088	92.8	65.8	149	4.42	20	
Surr: 4-Bromofluorobenzene	1.0		0.8772		118	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1310578**

RcptNo: **1**

Received by/date: *MJ* **10/11/13**
 Logged By: **Michelle Garcia** **10/11/2013 10:40:00 AM**
 Completed By: **Michelle Garcia** **10/11/2013 11:02:27 AM**
 Reviewed By: *MJ/STG* **10/11/13**

Michelle Garcia
Michelle Garcia

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes ✓ No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes ✓ No NA
- 6. Sample(s) in proper container(s)? Yes ✓ No
- 7. Sufficient sample volume for indicated test(s)? Yes ✓ No
- 8. Are samples (except VOA and ONG) properly preserved? Yes ✓ No
- 9. Was preservative added to bottles? Yes No ✓ NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials ✓
- 11. Were any sample containers received broken? Yes No ✓
of preserved bottles checked for pH:
- 12. Does paperwork match bottle labels? Yes ✓ No
(Note discrepancies on chain of custody) (<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes ✓ No Adjusted?
- 14. Is it clear what analyses were requested? Yes ✓ No
- 15. Were all holding times able to be met? Yes ✓ No Checked by:
- (If no, notify customer for authorization.)

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

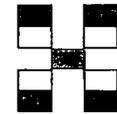
18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
 Mailing Address: P.O. Box 87
BLOOMFIELD NM 87413
 Phone #: 505-632-1199
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time: By MONDAY 10/14/2013
 Standard Rush
 Project Name:
PRITCHARD SWD
 Project #:
 Project Manager:
J. Blagg
 Sampler: J. Blagg
 On Ice: Yes No
 Sample Temperature: 1.0



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / HFO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
9/9/13	1635	SOIL	HA-1 @ 3'	4oz x 1	COOL	1310578 -001	X	X										X	
"	1656	"	HA-2 @ 3'	"	"	-002	X	X										X	
9/10/13	0945	"	HA-3 @ 2'	"	"	-003	X	X										X	
"	1000	"	HA-4 @ 2'	"	"	-004	X	X										X	
"	1030	"	HA-5 @ 2'	"	"	-005	X	X										X	
"	1050	"	HA-6 @ 2'	"	"	-006	X	X										X	

Date: 9/10/13 Time: 1251 Relinquished by: JH Blagg
 Date: 9/10/13 Time: 1800 Relinquished by: CHR Waale

Received by: CHR Waale Date: 9/10/13 Time: 1251
 Received by: Michelle Date: 9/11/13 Time: 10:40

Remarks: Bill Blagg
BP CONTACT: JEFF PEARCE

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



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

May 05, 2014

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: Pritchard SWD

OrderNo.: 1404B15

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/26/2014 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 www.hallenvironmental.com 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 qualifiers 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: CS-1 @ 28"

Project: Pritchard SWD

Collection Date: 4/23/2014 6:15:00 AM

Lab ID: 1404B15-001

Matrix: SOIL

Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/29/2014 6:45:23 PM	12891
Surr: DNOP	92.5	57.9-140		%REC	1	4/29/2014 6:45:23 PM	12891
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2014 5:45:43 PM	12911
Surr: BFB	84.8	74.5-129		%REC	1	4/30/2014 5:45:43 PM	12911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/30/2014 5:45:43 PM	12911
Toluene	ND	0.048		mg/Kg	1	4/30/2014 5:45:43 PM	12911
Ethylbenzene	ND	0.048		mg/Kg	1	4/30/2014 5:45:43 PM	12911
Xylenes, Total	ND	0.096		mg/Kg	1	4/30/2014 5:45:43 PM	12911
Surr: 4-Bromofluorobenzene	98.6	80-120		%REC	1	4/30/2014 5:45:43 PM	12911

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1404B15

Date Reported: 5/5/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: CS-2 @ 30"

Project: Pritchard SWD

Collection Date: 4/23/2014 6:25:00 AM

Lab ID: 1404B15-002

Matrix: SOIL

Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/29/2014 7:16:30 PM	12891
Surr: DNOP	105	57.9-140		%REC	1	4/29/2014 7:16:30 PM	12891
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/30/2014 6:14:22 PM	12911
Surr: BFB	86.5	74.5-129		%REC	1	4/30/2014 6:14:22 PM	12911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	4/30/2014 6:14:22 PM	12911
Toluene	ND	0.046		mg/Kg	1	4/30/2014 6:14:22 PM	12911
Ethylbenzene	ND	0.046		mg/Kg	1	4/30/2014 6:14:22 PM	12911
Xylenes, Total	ND	0.092		mg/Kg	1	4/30/2014 6:14:22 PM	12911
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/30/2014 6:14:22 PM	12911

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 2 of 10
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: CS-4 @ 30"

Project: Pritchard SWD

Collection Date: 4/23/2014 6:45:00 AM

Lab ID: 1404B15-004

Matrix: SOIL

Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/29/2014 8:18:26 PM	12891
Surr: DNOP	98.6	57.9-140		%REC	1	4/29/2014 8:18:26 PM	12891
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2014 7:11:35 PM	12911
Surr: BFB	85.6	74.5-129		%REC	1	4/30/2014 7:11:35 PM	12911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/30/2014 7:11:35 PM	12911
Toluene	ND	0.048		mg/Kg	1	4/30/2014 7:11:35 PM	12911
Ethylbenzene	ND	0.048		mg/Kg	1	4/30/2014 7:11:35 PM	12911
Xylenes, Total	ND	0.096		mg/Kg	1	4/30/2014 7:11:35 PM	12911
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	4/30/2014 7:11:35 PM	12911

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B15

05-May-14

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-12891	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12891	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/29/2014	SeqNo:	527432	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		102	57.9	140			

Sample ID	LCS-12891	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12891	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/29/2014	SeqNo:	527434	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.2	60.8	145			
Surr: DNOP	4.7		5.000		93.3	57.9	140			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B15

05-May-14

Client: Blagg Engineering

Project: Pritchard SWD

Sample ID	MB-12911	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529105	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.8	74.5	129			

Sample ID	LCS-12911	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529106	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	71.7	134			
Surr: BFB	940		1000		93.8	74.5	129			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B15
 05-May-14

Client: Blagg Engineering
Project: Pritchard SWD

Sample ID	MB-12911	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529274	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-12911	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	12911	RunNo:	18302					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	529275	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1404B15**

RcptNo: **1**

Received by/date:

AF

04/26/14

Logged By: **Lindsay Mangin**

4/26/2014 11:00:00 AM

Lindsay Mangin

Completed By: **Lindsay Mangin**

4/28/2014 7:45:47 AM

Lindsay Mangin

Reviewed By:

JO

04/28/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

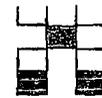
- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.7	Good	Yes			



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Standard Rush

BP America
 Mailing Address: P.O. Box 87
 Bloomfield, NM 87413
 Phone #: (505)320-1183
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Other _____
 EDD (Type) _____

Project Name: Pritchard SWD
 Project #:
 Project Manager: Jeff Blagg
 Sampler: Jeff Blagg
 On Ice: Yes No
 Sample Temperature: 2.7

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX (8021)	TPH 8015B (GRO / DRO)	Other Analytes										Air Bubbles (Y or N)				
04/23/2014	6:15	Soil	CS-1 @ 28"	4oz x 1	cool	1404BIS -001	x	x															
04/23/2014	6:25	Soil	CS-2 @ 30"	4oz x 1	cool	-002	x	x															
04/23/2014	6:35	Soil	CS-3 @ 30"	4oz x 1	cool	-003	x	x															
04/23/2014	6:45	Soil	CS-4 @ 30"	4oz x 1	cool	-004	x	x															
04/23/2014	6:55	Soil	CS-5 @ 26"	4oz x 1	cool	-005	x	x															
04/23/2014	7:05	Soil	CS-6 @ 26"	4oz x 1	cool	-006	x	x															
04/23/2014	7:15	Soil	CS-7 @ 30"	4oz x 1	cool	-007	x	x															

Date: 4/25/14	Time: 9:20	Relinquished by: Jeff Blagg	Received by: Christ Walker	Date: 4/25/14	Time: 9:20
Date: 4/25/14	Time: 16:40	Relinquished by: Christ Walker	Received by: [Signature]	Date: 4/26/14	Time: 11:00

Remarks: Bill Blagg Engineering

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