

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

AUG 11 2015

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: BP	Contact: Steve Moskal
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497
Facility Name: Stewart LS 8	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Private	API No. 3004509125
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**LOCATION OF RELEASE**

Unit Letter N	Section 28	Township 30N	Range 10W	Feet from the 1,060	North/South Line South	Feet from the 1,650	East/West Line West	County: San Juan
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Latitude 36.77838 Longitude -107.89219

**NATURE OF RELEASE**

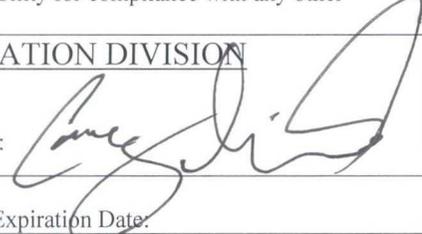
Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: Below Grade Tank (BGT) – 95 bbl	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: February 5, 2015; 11:30
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
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.\*

Describe Cause of Problem and Remedial Action Taken.\* **SUPPLEMENTAL INFORMATION**  
During upgrade of 95 bbl below grade tank, contaminated soil was discovered. Impacted soil was excavated and removed.

Describe Area Affected and Cleanup Action Taken.\* The area of impact was excavated to approximately 78' x 60' x 19.5' in depth. No water was encountered. Laboratory analysis the final extents of the excavation to be below soil remediation standards. 1,400 cubic yards of soils was excavated and transported offsite for disposal.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>8/12/15</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: August 6, 2015	Phone: 505-326-9497	

\* Attach Additional Sheets If Necessary

#N5K 151 325 4193

**BP America: Stewart LS 8**  
**(N) Sec 28 – T30N – R10W**  
**API: 30-045-09125**  
**San Juan County, New Mexico**

Summary Record of Impact Remediation

February 5, 2015 Soils impacted with hydrocarbons encountered during upgrade of the 95 barrel BGT. Laboratory testing of soils immediately below the BGT determined the total petroleum hydrocarbon (TPH) content at 1,380 mg/Kg by U.S. EPA Method 8015B. Chlorides were tested at less than 30 mg/Kg and total BTEX was reported at 109 mg/Kg. The BGT was situated within a dense bedrock.

The site NMOCD/BLM closure standard was determined at 100 ppm TPH based on:

- Horizontal Distance to dry arroyo 165 feet (20 points)
- Nearest Water Well > 1,000 feet (0 points)
- Depth to Groundwater Between >100 feet (0 points)

April 13, 2015 Work crew initiates excavation of site hydrocarbon impacts. The sandstone that surrounded the BGT was excavated to a size of 30' x 27' x 19.5' deep. A base grab sample field tested OVM = 109 ppm, South Sidewall 3-point composite field tested OVM = 1,048 ppm and West Sidewall 3-point composite field tested OVM = 1,076 ppm. Samples were submitted to Hall Environmental Labs for testing of TPH, BTEX and Chlorides:

Sample ID	Sample Date	Map ID	TPH 8015B (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Comments
Base Grab @ 19.5'	4/13/2015	1	ND	0.11	ND	
South Wall 3-pt 5' – 15'	4/13/2015	NA	290	9.06	ND	Subsequently Excavated
West Wall 3-pt 5' – 15'	4/13/2015	NA	2,300	45.1	ND	Subsequently Excavated

April 15, 2015 Excavation size approximately 45'x40'x19.5 feet deep. All sidewall sampling field test elevated OVM readings and excavation is continued in all directions.

April 20, 2015 Excavation size approximately 70' x 50' x 19.5 feet deep. Collect sidewall and base samples for laboratory testing of TPH, BTEX and Chlorides:

Sample ID	Sample Date	Map ID	TPH 8015B (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Comments
West Wall 3-pt 5' – 15'	4/20/2015	2	ND	ND	ND	Final Extent of Excavation to West
South Wall 3-pt 5' – 15'	4/20/2015	3	ND	ND	ND	Final Extent of Excavation to South
East Wall 3-pt 5' – 15'	4/20/2015	4	ND	ND	ND	Final Extent of Excavation to East
South Base 3-pt @ 21'	4/20/2015	5	6	0.081	ND	

April 21, 2015 Excavation size approximately 78' x 60' x 19.5' deep. Collect north wall, north east wall and north base samples for laboratory testing of TPH, BTEX and Chlorides:

Sample ID	Sample Date	Map ID	TPH 8015B (mg/Kg)	Total BTEX (mg/Kg)	Benzene (mg/Kg)	Comments
North Wall - West 3-pt 5' - 15'	4/21/2015	6	ND	ND	ND	Final Extent of Excavation to NW
North Wall - East 3-pt 5' - 15'	4/21/2015	7	ND	ND	ND	Final Extent of Excavation to NE
East Wall - North 3-pt 5' - 15'	4/21/2015	8	ND	ND	ND	Final Extent of Excavation to NE
Base 3-pt @ 20' North East Area	4/21/2015	9	ND	ND	ND	

April 28, 2015 Crew completes backfilling with clean fill. A replacement BGT (95 barrel double wall/double bottom) scheduled to be installed in the exact same location pursuant to an approved BGT permit. Approximate volume of soils removed and transported to BP Crouch Mesa Landfarm = 1,400 CY.



Stewart LS 8 

Final Excavation Perimeter  
(78'x60'x19.5' deep)

Original 95 BGT Location

107.8944444° W

107.8888888° W

36.7833333° N

36.7833333° N

36.7777777° N

36.7777777° N

36.7722222° N

36.7722222° N

107.8944444° W

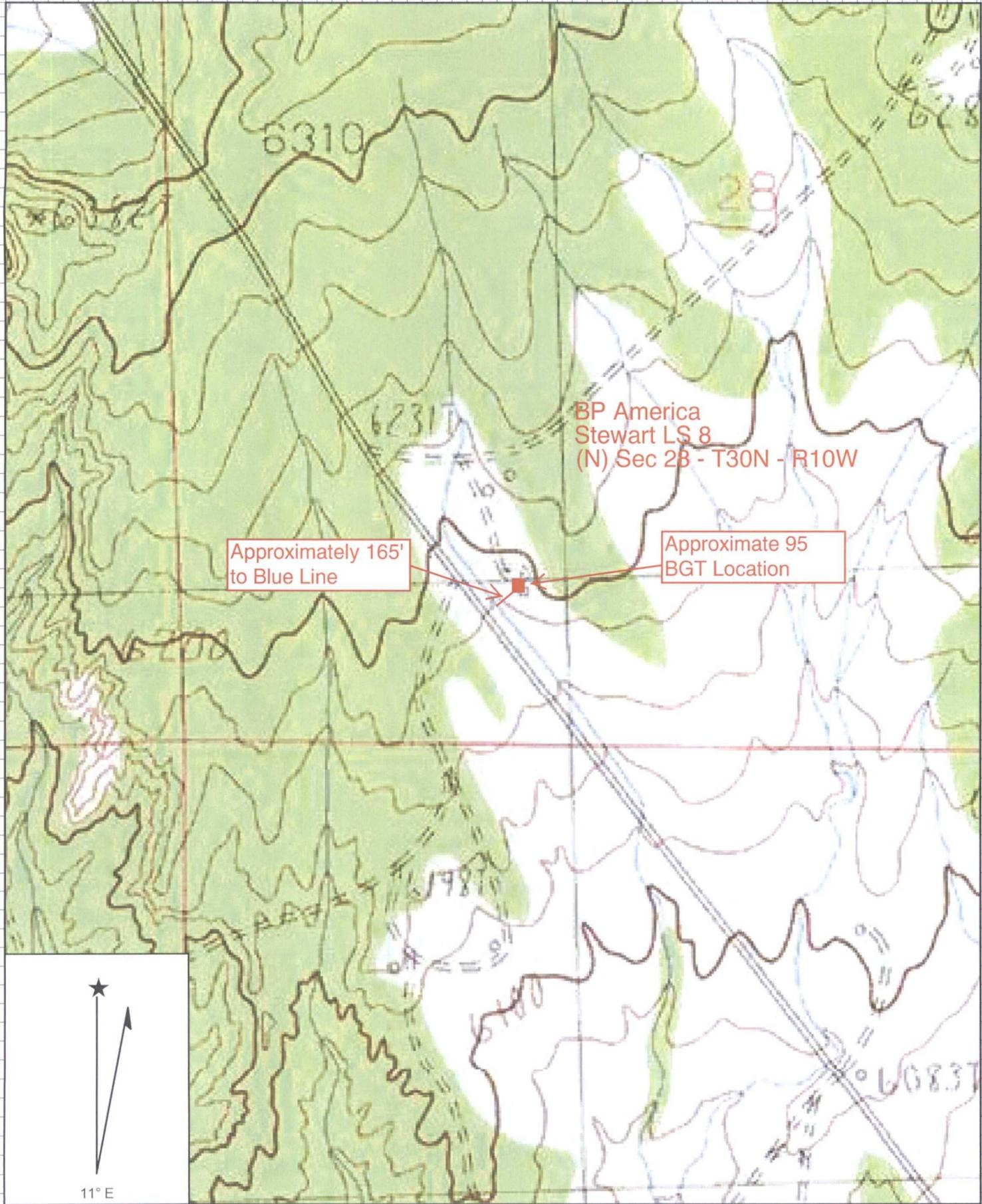
107.8888888° W



Approximately 165'  
to Blue Line

Approximate 95  
BGT Location

BP America  
Stewart LS 8  
(N) Sec 28 - T30N - R10W



Name: AZTEC  
 Date: 2/5/2015  
 Scale: 1 inch equals 666 feet

Location: 036.7780754° N 107.8928546° W

An aerial photograph of a desert landscape. A paved road runs diagonally from the bottom left towards the center. In the upper right quadrant, there is a small, light-colored rectangular structure. A yellow line is drawn from the structure towards the bottom center of the frame. The terrain is sandy and sparsely vegetated with dark, scrubby bushes.

Stewart LS 8

Approximately 165' to Dry Wash

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Base Grab @ 19.5'

Project: Stewart LS 8

Collection Date: 4/13/2015 2:20:00 PM

Lab ID: 1504587-001

Matrix: SOIL

Received Date: 4/14/2015 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/14/2015 10:25:38 AM	18676
Surr: DNOP	90.2	63.5-128		%REC	1	4/14/2015 10:25:38 AM	18676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/16/2015 9:24:32 AM	18677
Surr: BFB	87.2	80-120		%REC	1	4/16/2015 9:24:32 AM	18677
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	4/15/2015 10:25:13 AM	18677
Toluene	ND	0.048		mg/Kg	1	4/15/2015 10:25:13 AM	18677
Ethylbenzene	ND	0.048		mg/Kg	1	4/15/2015 10:25:13 AM	18677
Xylenes, Total	0.11	0.096		mg/Kg	1	4/15/2015 10:25:13 AM	18677
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	1	4/15/2015 10:25:13 AM	18677
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/14/2015 12:56:00 PM	18688

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

<b>Qualifiers:</b>	*	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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1504587

Date Reported: 4/17/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: South Wall 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/13/2015 2:25:00 PM

Lab ID: 1504587-002

Matrix: SOIL

Received Date: 4/14/2015 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	180	9.8		mg/Kg	1	4/14/2015 11:19:24 AM	18676
Surr: DNOP	101	63.5-128		%REC	1	4/14/2015 11:19:24 AM	18676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	24		mg/Kg	5	4/16/2015 9:53:16 AM	18677
Surr: BFB	184	80-120	S	%REC	5	4/16/2015 9:53:16 AM	18677
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	4/15/2015 10:53:53 AM	18677
Toluene	ND	0.24		mg/Kg	5	4/15/2015 10:53:53 AM	18677
Ethylbenzene	0.46	0.24		mg/Kg	5	4/15/2015 10:53:53 AM	18677
Xylenes, Total	8.6	0.47		mg/Kg	5	4/15/2015 10:53:53 AM	18677
Surr: 4-Bromofluorobenzene	111	80-120		%REC	5	4/15/2015 10:53:53 AM	18677
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/14/2015 1:08:25 PM	18688

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

<b>Qualifiers:</b>	* 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 Not In Range
	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: West Wall 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/13/2015 2:30:00 PM

Lab ID: 1504587-003

Matrix: SOIL

Received Date: 4/14/2015 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	1000	10		mg/Kg	1	4/14/2015 11:46:14 AM	18676
Surr: DNOP	107	63.5-128		%REC	1	4/14/2015 11:46:14 AM	18676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	1300	47		mg/Kg	10	4/16/2015 10:21:57 AM	18677
Surr: BFB	878	80-120	S	%REC	10	4/16/2015 10:21:57 AM	18677
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.24		mg/Kg	10	4/15/2015 11:22:35 AM	18677
Toluene	ND	0.47		mg/Kg	10	4/15/2015 11:22:35 AM	18677
Ethylbenzene	2.1	0.47		mg/Kg	10	4/15/2015 11:22:35 AM	18677
Xylenes, Total	43	0.94		mg/Kg	10	4/15/2015 11:22:35 AM	18677
Surr: 4-Bromofluorobenzene	137	80-120	S	%REC	10	4/15/2015 11:22:35 AM	18677
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/14/2015 1:20:50 PM	18688

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

<b>Qualifiers:</b>	*	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 Not In Range
	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#: 1504587  
 17-Apr-15

**Client:** Blagg Engineering  
**Project:** Stewart LS 8

Sample ID	<b>MB-18688</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18688</b>	RunNo:	<b>25522</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/14/2015</b>	SeqNo:	<b>755890</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-18688</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18688</b>	RunNo:	<b>25522</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/14/2015</b>	SeqNo:	<b>755891</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	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 Not In Range
- RL Reporting Detection Limit

**QC SUMMARY REPORT**  
**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1504587  
 17-Apr-15

**Client:** Blagg Engineering  
**Project:** Stewart LS 8

Sample ID <b>MB-18676</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>18676</b>		RunNo: <b>25490</b>							
Prep Date: <b>4/14/2015</b>	Analysis Date: <b>4/14/2015</b>		SeqNo: <b>754944</b>		Units: <b>mg/Kg</b>					
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	63.5	128			

Sample ID <b>LCS-18676</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>18676</b>		RunNo: <b>25490</b>							
Prep Date: <b>4/14/2015</b>	Analysis Date: <b>4/14/2015</b>		SeqNo: <b>754945</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.4	67.8	130			
Surr: DNOP	4.9		5.000		98.1	63.5	128			

Sample ID <b>1504587-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>Base Grab @ 19.5'</b>	Batch ID: <b>18676</b>		RunNo: <b>25490</b>							
Prep Date: <b>4/14/2015</b>	Analysis Date: <b>4/14/2015</b>		SeqNo: <b>755000</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.40	6.048	93.9	29.2	176			
Surr: DNOP	5.1		5.040		100	63.5	128			

Sample ID <b>1504587-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>Base Grab @ 19.5'</b>	Batch ID: <b>18676</b>		RunNo: <b>25490</b>							
Prep Date: <b>4/14/2015</b>	Analysis Date: <b>4/14/2015</b>		SeqNo: <b>756198</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.8	49.12	6.048	91.4	29.2	176	4.62	23	
Surr: DNOP	5.0		4.912		102	63.5	128	0	0	

**Qualifiers:**

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- 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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504587

17-Apr-15

Client: Blagg Engineering

Project: Stewart LS 8

Sample ID	<b>MB-18677</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757250</b>	Units:	<b>mg/Kg</b>			
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		85.4	80	120			

Sample ID	<b>LCS-18677</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757251</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	64	130			
Surr: BFB	970		1000		97.1	80	120			

Sample ID	<b>1504587-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>Base Grab @ 19.5'</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757266</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	23.99	0	97.4	47.9	144			
Surr: BFB	910		959.7		94.3	80	120			

Sample ID	<b>1504587-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>Base Grab @ 19.5'</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757267</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	23.97	0	98.5	47.9	144	0.966	29.9	
Surr: BFB	920		958.8		96.0	80	120	0	0	

Sample ID	<b>MB-18710</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18710</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/15/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757273</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.2	80	120			

Sample ID	<b>LCS-18710</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18710</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/15/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757274</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		95.8	80	120			

**Qualifiers:**

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- 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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504587

17-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID	<b>MB-18677</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25529</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/15/2015</b>	SeqNo:	<b>756558</b>	Units:	<b>mg/Kg</b>			
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	0.99		1.000		98.7	80	120			

Sample ID	<b>LCS-18677</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25529</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/15/2015</b>	SeqNo:	<b>756559</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	76.6	128			
Toluene	1.0	0.050	1.000	0	102	75	124			
Ethylbenzene	1.1	0.050	1.000	0	107	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	107	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	<b>1504587-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>South Wall 3-pt 5'-1</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25529</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/15/2015</b>	SeqNo:	<b>756581</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.24	0.9452	0	100	69.2	126			
Toluene	1.2	0.24	0.9452	0.1609	110	65.6	128			
Ethylbenzene	1.7	0.24	0.9452	0.4592	129	65.5	138			
Xylenes, Total	14	0.47	2.836	8.554	183	63	139			S
Surr: 4-Bromofluorobenzene	5.4		4.726		114	80	120			

Sample ID	<b>1504587-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>South Wall 3-pt 5'-1</b>	Batch ID:	<b>18677</b>	RunNo:	<b>25529</b>					
Prep Date:	<b>4/14/2015</b>	Analysis Date:	<b>4/15/2015</b>	SeqNo:	<b>756582</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.24	0.9470	0	91.3	69.2	126	8.92	18.5	
Toluene	1.1	0.24	0.9470	0.1609	102	65.6	128	6.45	20.6	
Ethylbenzene	1.6	0.24	0.9470	0.4592	124	65.5	138	2.77	20.1	
Xylenes, Total	14	0.47	2.841	8.554	207	63	139	4.98	21.1	S
Surr: 4-Bromofluorobenzene	5.6		4.735		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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504587

17-Apr-15

Client: Blagg Engineering

Project: Stewart LS 8

Sample ID	<b>MB-18710</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18710</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/15/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757283</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			

Sample ID	<b>LCS-18710</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18710</b>	RunNo:	<b>25555</b>					
Prep Date:	<b>4/15/2015</b>	Analysis Date:	<b>4/16/2015</b>	SeqNo:	<b>757284</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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 Not In Range
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: **BLAGG**

Work Order Number: **1504587**

RcptNo: **1**

Received by/date: [Signature] 4/14/15

Logged By: **Lindsay Mangin** 4/14/2015 7:10:00 AM [Signature]

Completed By: **Lindsay Mangin** 4/14/2015 7:21:09 AM [Signature]

Reviewed By: NB 4/14/15

**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:

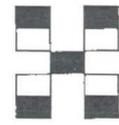
**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

# Chain-of-Custody Record

Client: **BP AMERICA**  
**Blagg**  
 Mailing Address: **P.O. Box 97**  
**Bloomfield NM 97413**  
 Phone #: **5053201193**  
 email or Fax#:  
 QA/QC Package:  
 Standard     Level 4 (Full Validation)  
 Accreditation  
 NELAP     Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time: **SAME DAY**  
 Standard     Rush  
 Project Name:  
**STEWART LS 8**  
 Project #:  
 Project Manager:  
**J. Blagg**  
 Sampler: **J. Blagg**  
 On Ice:  Yes     No  
 Sample Temperature: **118**



## 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 + PMS (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MIBCO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
1/3/15	1420	SOIL	BASE GRAB @ 19 1/2"	4oz x 1	cool	1504587-001	X	X										X	
"	1425	"	South wall 3-pc 5'-15"	"	"	-002	X	X										X	
"	1430	"	West wall 3-pc 5'-15"	"	"	-003	X	X										X	

Date: **1/3/15** Time: **1600** Relinquished by: **JH Blagg**

Received by: Date: **04/14/15** Time: **0710**

Remarks: **Bill BP CONTACT: JEFF PEACE PARKER: ZEVHOIREME**

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, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: South Wall 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/20/2015 8:35:00 AM

Lab ID: 1504847-002

Matrix: MEOH (SOIL)

Received Date: 4/21/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/21/2015 10:53:31 AM	18792
Surr: DNOP	88.7	57.9-140		%REC	1	4/21/2015 10:53:31 AM	18792
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/21/2015 11:07:08 AM	18764
Surr: BFB	86.9	80-120		%REC	1	4/21/2015 11:07:08 AM	18764
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.039		mg/Kg	1	4/21/2015 11:07:08 AM	18764
Toluene	ND	0.039		mg/Kg	1	4/21/2015 11:07:08 AM	18764
Ethylbenzene	ND	0.039		mg/Kg	1	4/21/2015 11:07:08 AM	18764
Xylenes, Total	ND	0.077		mg/Kg	1	4/21/2015 11:07:08 AM	18764
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	4/21/2015 11:07:08 AM	18764
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/21/2015 11:04:17 AM	18796

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

<b>Qualifiers:</b>	*	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 Not In Range
	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: East Wall 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/20/2015 8:40:00 AM

Lab ID: 1504847-003

Matrix: MEOH (SOIL)

Received Date: 4/21/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2015 11:14:59 AM	18792
Surr: DNOP	89.1	57.9-140		%REC	1	4/21/2015 11:14:59 AM	18792
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/21/2015 11:35:56 AM	18764
Surr: BFB	87.5	80-120		%REC	1	4/21/2015 11:35:56 AM	18764
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.042		mg/Kg	1	4/21/2015 11:35:56 AM	18764
Toluene	ND	0.042		mg/Kg	1	4/21/2015 11:35:56 AM	18764
Ethylbenzene	ND	0.042		mg/Kg	1	4/21/2015 11:35:56 AM	18764
Xylenes, Total	ND	0.085		mg/Kg	1	4/21/2015 11:35:56 AM	18764
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	4/21/2015 11:35:56 AM	18764
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/21/2015 11:16:42 AM	18796

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

<b>Qualifiers:</b>	*	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 Not In Range
	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: South Base 3-pt @ 21'

Project: Stewart LS 8

Collection Date: 4/20/2015 8:45:00 AM

Lab ID: 1504847-004

Matrix: MEOH (SOIL)

Received Date: 4/21/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2015 11:36:26 AM	18792
Surr: DNOP	86.2	57.9-140		%REC	1	4/21/2015 11:36:26 AM	18792
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	6.0	3.9		mg/Kg	1	4/21/2015 10:09:44 AM	18764
Surr: BFB	123	80-120	S	%REC	1	4/21/2015 10:09:44 AM	18764
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.039		mg/Kg	1	4/21/2015 10:09:44 AM	18764
Toluene	ND	0.039		mg/Kg	1	4/21/2015 10:09:44 AM	18764
Ethylbenzene	ND	0.039		mg/Kg	1	4/21/2015 10:09:44 AM	18764
Xylenes, Total	0.081	0.078		mg/Kg	1	4/21/2015 10:09:44 AM	18764
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	4/21/2015 10:09:44 AM	18764
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/21/2015 11:29:07 AM	18796

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

<b>Qualifiers:</b>	*	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 Not In Range
	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#: 1504847

23-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID	<b>LCS-18796</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18796</b>	RunNo:	<b>25659</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/21/2015</b>	SeqNo:	<b>760450</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	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 Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504847

23-Apr-15

Client: Blagg Engineering

Project: Stewart LS 8

Sample ID	<b>MB-18792</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18792</b>	RunNo:	<b>25632</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/21/2015</b>	SeqNo:	<b>759849</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.5		10.00		84.8	57.9	140			

Sample ID	<b>LCS-18792</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18792</b>	RunNo:	<b>25632</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/21/2015</b>	SeqNo:	<b>759851</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	67.8	130			
Surr: DNOP	4.7		5.000		94.5	57.9	140			

### 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 Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504847

23-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID <b>MB-18764</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>18764</b>		RunNo: <b>25643</b>							
Prep Date: <b>4/20/2015</b>	Analysis Date: <b>4/21/2015</b>		SeqNo: <b>760143</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		86.9	80	120			

Sample ID <b>LCS-18764</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>18764</b>		RunNo: <b>25643</b>							
Prep Date: <b>4/20/2015</b>	Analysis Date: <b>4/21/2015</b>		SeqNo: <b>760144</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Surr: BFB	990		1000		98.9	80	120			

Sample ID <b>MB-18803</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>18803</b>		RunNo: <b>25665</b>							
Prep Date: <b>4/21/2015</b>	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761162</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.0	80	120			

Sample ID <b>LCS-18803</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>18803</b>		RunNo: <b>25665</b>							
Prep Date: <b>4/21/2015</b>	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761163</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.4	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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504847

23-Apr-15

Client: Blagg Engineering

Project: Stewart LS 8

Sample ID	<b>MB-18764</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18764</b>	RunNo:	<b>25643</b>					
Prep Date:	<b>4/20/2015</b>	Analysis Date:	<b>4/21/2015</b>	SeqNo:	<b>760213</b>	Units:	<b>mg/Kg</b>			
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	0.97		1.000		97.1	80	120			

Sample ID	<b>LCS-18764</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18764</b>	RunNo:	<b>25643</b>					
Prep Date:	<b>4/20/2015</b>	Analysis Date:	<b>4/21/2015</b>	SeqNo:	<b>760214</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	76.6	128			
Toluene	1.0	0.050	1.000	0	105	75	124			
Ethylbenzene	1.1	0.050	1.000	0	110	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>MB-18803</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18803</b>	RunNo:	<b>25665</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761191</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID	<b>LCS-18803</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18803</b>	RunNo:	<b>25665</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761192</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	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 Not In Range
- RL Reporting Detection Limit



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

# Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1504847**

RcptNo: **1**

Received by/date: *[Signature]* **04/21/15**

Logged By: **Lindsay Mangin** **4/21/2015 7:30:00 AM** *[Signature]*

Completed By: **Lindsay Mangin** **4/21/2015 8:08:10 AM** *[Signature]*

Reviewed By: *[Signature]*

### 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:

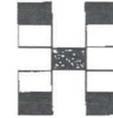
### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			

# Chain-of-Custody Record

Client: **BP America**  
**BLAGG Engr.**  
 Mailing Address: **P.O. Box 87**  
**Bloomfield NM 87413**  
 Phone #: **505-320-1123**  
 email or Fax#: \_\_\_\_\_  
 QA/QC Package:  
 Standard       Level 4 (Full Validation)  
 Accreditation  
 NELAP       Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time: **SAME DAY**  
 Standard       Rush  
 Project Name: **STEWART LS 8**  
 Project #: \_\_\_\_\_  
 Project Manager: **J. Blagg**  
 Sampler: **J. Blagg**  
 On Ice:  Yes       No  
 Sample Temperature: **3.3**



## 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 + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ATFO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
4/23/2015	0830	SOIL	West wall 3-pt 5'-15"	4oz x 1	COOL	1504847 -001	X	X										X	
"	0835	"	South wall 3-pt 5'-15"	"	"	-002	X	X										X	
"	0840	"	EAST wall 3-pt 5'-15"	"	"	-003	X	X										X	
"	0845	"	BASE SOUTH BASE 3-pt @ 2'	"	"	-004	X	X										X	

Date: 4/23/2015 Time: 1637 Relinquished by: **Jeff Blagg**  
 Received by: **Christine Wacker** Date: 4/20/15 Time: 1637  
 Date: 4/20/15 Time: 1841 Relinquished by: **Christine Wacker**  
 Received by: **[Signature]** Date: 04/21/2015 Time: 0730

Remarks: **Bill BP**  
**CONTACT: JEFF PEACE**  
**PARKEY: ~~ZEVHOIREME~~**  
**ZEVHOIREME**

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.

Analytical Report

Lab Order 1504929

Date Reported: 4/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: N Wall W 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/21/2015 12:20:00 PM

Lab ID: 1504929-001

Matrix: SOIL

Received Date: 4/22/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2015 10:08:08 AM	18826
Surr: DNOP	84.7	57.9-140		%REC	1	4/22/2015 10:08:08 AM	18826
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/22/2015 9:20:58 AM	R25665
Surr: BFB	86.6	80-120		%REC	1	4/22/2015 9:20:58 AM	R25665
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.039		mg/Kg	1	4/22/2015 9:20:58 AM	R25665
Toluene	ND	0.039		mg/Kg	1	4/22/2015 9:20:58 AM	R25665
Ethylbenzene	ND	0.039		mg/Kg	1	4/22/2015 9:20:58 AM	R25665
Xylenes, Total	ND	0.077		mg/Kg	1	4/22/2015 9:20:58 AM	R25665
Surr: 4-Bromofluorobenzene	95.3	80-120		%REC	1	4/22/2015 9:20:58 AM	R25665
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	4/22/2015 10:54:42 AM	18827

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 8
	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 Not In Range	
	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: N Wall E 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/21/2015 12:25:00 PM

Lab ID: 1504929-002

Matrix: SOIL

Received Date: 4/22/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/22/2015 10:35:05 AM	18826
Surr: DNOP	86.5	57.9-140		%REC	1	4/22/2015 10:35:05 AM	18826
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/22/2015 9:49:41 AM	R25665
Surr: BFB	85.9	80-120		%REC	1	4/22/2015 9:49:41 AM	R25665
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.038		mg/Kg	1	4/22/2015 9:49:41 AM	R25665
Toluene	ND	0.038		mg/Kg	1	4/22/2015 9:49:41 AM	R25665
Ethylbenzene	ND	0.038		mg/Kg	1	4/22/2015 9:49:41 AM	R25665
Xylenes, Total	ND	0.076		mg/Kg	1	4/22/2015 9:49:41 AM	R25665
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	4/22/2015 9:49:41 AM	R25665
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	4/22/2015 11:07:06 AM	18827

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

<b>Qualifiers:</b>	*	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 Not In Range
	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: E Wall N 3-pt 5'-15'

Project: Stewart LS 8

Collection Date: 4/21/2015 12:30:00 PM

Lab ID: 1504929-003

Matrix: SOIL

Received Date: 4/22/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/22/2015 11:02:08 AM	18826
Surr: DNOP	84.8	57.9-140		%REC	1	4/22/2015 11:02:08 AM	18826
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/22/2015 10:18:25 AM	R25665
Surr: BFB	85.9	80-120		%REC	1	4/22/2015 10:18:25 AM	R25665
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.041		mg/Kg	1	4/22/2015 10:18:25 AM	R25665
Toluene	ND	0.041		mg/Kg	1	4/22/2015 10:18:25 AM	R25665
Ethylbenzene	ND	0.041		mg/Kg	1	4/22/2015 10:18:25 AM	R25665
Xylenes, Total	ND	0.082		mg/Kg	1	4/22/2015 10:18:25 AM	R25665
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	4/22/2015 10:18:25 AM	R25665
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	4/22/2015 11:19:31 AM	18827

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

<b>Qualifiers:</b>	*	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 Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1504929

Date Reported: 4/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Base 3-pt @ 20' NE Area

Project: Stewart LS 8

Collection Date: 4/21/2015 12:35:00 PM

Lab ID: 1504929-004

Matrix: SOIL

Received Date: 4/22/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2015 11:29:12 AM	18826
Surr: DNOP	89.6	57.9-140		%REC	1	4/22/2015 11:29:12 AM	18826
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	4/22/2015 10:47:06 AM	R25665
Surr: BFB	87.4	80-120		%REC	1	4/22/2015 10:47:06 AM	R25665
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.042		mg/Kg	1	4/22/2015 10:47:06 AM	R25665
Toluene	ND	0.042		mg/Kg	1	4/22/2015 10:47:06 AM	R25665
Ethylbenzene	ND	0.042		mg/Kg	1	4/22/2015 10:47:06 AM	R25665
Xylenes, Total	ND	0.084		mg/Kg	1	4/22/2015 10:47:06 AM	R25665
Surr: 4-Bromofluorobenzene	94.9	80-120		%REC	1	4/22/2015 10:47:06 AM	R25665
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	4/22/2015 11:31:55 AM	18827

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 4 of 8
	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 Not In Range	
	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#: 1504929

23-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID	<b>MB-18827</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18827</b>	RunNo:	<b>25690</b>					
Prep Date:	<b>4/22/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761434</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-18827</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18827</b>	RunNo:	<b>25690</b>					
Prep Date:	<b>4/22/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761435</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504929

23-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID	<b>MB-18826</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18826</b>	RunNo:	<b>25657</b>					
Prep Date:	<b>4/22/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>760594</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		84.3	57.9	140			

Sample ID	<b>LCS-18826</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18826</b>	RunNo:	<b>25657</b>					
Prep Date:	<b>4/22/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>760595</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.2	67.8	130			
Surr: DNOP	4.1		5.000		82.2	57.9	140			

Sample ID	<b>MB-18778</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18778</b>	RunNo:	<b>25657</b>					
Prep Date:	<b>4/20/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>760797</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		110	57.9	140			

Sample ID	<b>LCS-18778</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18778</b>	RunNo:	<b>25657</b>					
Prep Date:	<b>4/20/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>760798</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	57.9	140			

**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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504929

23-Apr-15

**Client:** Blagg Engineering  
**Project:** Stewart LS 8

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R25665</b>	RunNo:	<b>25665</b>					
Prep Date:		Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761154</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.7	80	120			

Sample ID	<b>2.5UG GRO LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R25665</b>	RunNo:	<b>25665</b>					
Prep Date:		Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761155</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	64	130			
Surr: BFB	940		1000		94.4	80	120			

Sample ID	<b>MB-18803</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>18803</b>	RunNo:	<b>25665</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761162</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.0	80	120			

Sample ID	<b>LCS-18803</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>18803</b>	RunNo:	<b>25665</b>					
Prep Date:	<b>4/21/2015</b>	Analysis Date:	<b>4/22/2015</b>	SeqNo:	<b>761163</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.4	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 Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1504929

23-Apr-15

**Client:** Blagg Engineering

**Project:** Stewart LS 8

Sample ID <b>5ML RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R25665</b>		RunNo: <b>25665</b>							
Prep Date:	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761187</b>		Units: <b>mg/Kg</b>					
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	0.92		1.000		91.8	80	120			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R25665</b>		RunNo: <b>25665</b>							
Prep Date:	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761188</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	112	76.6	128			
Toluene	1.1	0.050	1.000	0	112	75	124			
Ethylbenzene	1.1	0.050	1.000	0	113	79.5	126			
Xylenes, Total	3.4	0.10	3.000	0	112	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID <b>MB-18803</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>18803</b>		RunNo: <b>25665</b>							
Prep Date: <b>4/21/2015</b>	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761191</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID <b>LCS-18803</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>18803</b>		RunNo: <b>25665</b>							
Prep Date: <b>4/21/2015</b>	Analysis Date: <b>4/22/2015</b>		SeqNo: <b>761192</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	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 Not In Range
- RL Reporting Detection Limit

Client Name: **BLAGG**

Work Order Number: 1504929

RcptNo: 1

Received by/date: *AS 04/22/15*

Logged By: **Anne Thorne** 4/22/2015 8:00:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 4/22/2015 *Anne Thorne*

Reviewed By: *JA 04/22/15*

**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   
(Note discrepancies on chain of custody)
- 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? Yes  No   
(If no, notify customer for authorization.)

# 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	1.0	Good	Yes			

# Chain-of-Custody Record

Turn-Around Time:  
 Standard  Rush SAME DAY

Project Name:  
STEWART LS 8

Project #:

Client: BP AMERICA

BLAGG

Mailing Address: P.O. Box 87  
BLOOMFIELD NM 87413

Phone #: 505-320-1183

email or Fax#:

QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation  
 NELAP  Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

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 <del>MTBE</del> THMs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / <del>THM</del> )	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
<u>4/21/2015</u>	<u>1220</u>	<u>SOIL</u>	<u>NORTH wall - West 3-pt 5'-15"</u>	<u>4 oz x 1</u>	<u>COOL</u>	<u>1504929</u> <u>-C01</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	
<u>"</u>	<u>1225</u>	<u>"</u>	<u>NORTH wall - EAST 3-pt 5'-15"</u>	<u>"</u>	<u>"</u>	<u>-C02</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	
<u>"</u>	<u>1230</u>	<u>"</u>	<u>EAST wall - NORTH 3-pt 5'-15"</u>	<u>"</u>	<u>"</u>	<u>-C03</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	
<u>LC</u>	<u>1235</u>	<u>"</u>	<u>BASE 3-pt @ 20' NE AREA</u>	<u>"</u>	<u>"</u>	<u>-C04</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	

Date: 4/21/2015 Time: 1427 Relinquished by: Jeff Blagg

Date: 4/21/2015 Time: 1427 Received by: Christa Walt

Date: 4/21/15 Time: 1740 Relinquished by: Christa Walt

Date: 4/22/15 Time: 0800 Received by: Chris

Remarks: BILL BP  
CONTACT: JEFF PEACE  
PARKER: ZEVKORREME

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.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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-138  
Revised March 12, 2007

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

### REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

<b>1. Generator Name and Address:</b> BP America Production Co. * 200 Energy Court * Farmington, NM 87401	
<b>2. Originating Site: Stewart LS 8 - SW/4 Section 28, T30N, R10W</b>	
<b>3. Location of Material (Street Address, City, State or ULSTR): SW/4 Section 28, T30N, R10W</b> or Physical Address: 200 Energy Court, Farmington, NM 87401	
<b>4. Source and Description of Waste:</b> Hydrocarbon impacted soil due to condensate release Estimated Volume <u>100</u> yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) <u>280</u> yd <sup>3</sup> / bbls <i>Handwritten notes: 4/21/15 - 340cy, 4/20/15 - 220cy, 4/17/15 - 110cy, 4/16/15 - 200cy, 4/15/15 - 140cy, 4/14/15 - 100cy</i>	
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b> I, <u>Jeff Peace</u> <i>Jeff Peace</i> , representative or authorized agent for <u>BP America Production Company</u> do hereby <b>Generator Signature</b> certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with exempt waste. <b>Operator Use Only: Waste Acceptance Frequency</b> <input checked="" type="checkbox"/> <b>Monthly</b> <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste 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 (check the appropriate items) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Block 6) <b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b> I, <u>Jeff Peace</u> <i>Jeff Peace</i> , representative for <u>BP America</u> <i>IEI</i> do hereby certify that <b>Representative/Agent Signature</b> <i>Heather Solph</i> representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the results have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The following documentation of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.	
<b>6. Transporter: Crossfire</b>	



#### OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JFJ Landfarm) / Industrial Ecosystem, Inc. Permit No. 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

*CL 132  
ph-7*

Waste Acceptance Status:

**APPROVED**

**DENIED (Must Be Maintained As Permanent Record)**

PRINT NAME: Heather Solph

TITLE: Clerk

DATE: 4/13/15

SIGNATURE: Heather Solph  
Surface Waste Management Facility Authorized Agent

TELEPHONE: 505-632-1782 FAX NO.: 505-632-1876 or 505-334-1003

*4/13/15*