

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: Lobato Gas Com D 1	Facility Type: Natural gas well	
Surface Owner: Private	Mineral Owner: Private	API No. 3004513083

**LOCATION OF RELEASE**

Unit Letter D	Section 3	Township 29N	Range 9W	Feet from the 1,190	North/South Line North	Feet from the 790	East/West Line West	County: San Juan
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Latitude 36.75745 Longitude 107.77361

**NATURE OF RELEASE**

Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: unknown	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: May 2, 2012; 11:25 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input 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.\* During operations to remove below grade tanks and associated piping contaminated soil was discovered. Initial investigation with test holes indicated impacts throughout the well area and groundwater at four feet deep. Excavation of impacted soil was done.


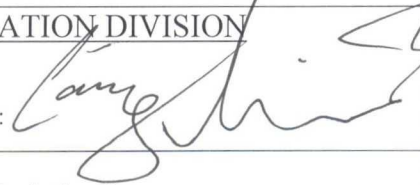
**OIL CONS. DIV DIST. 3**

**Supplemental Information**

**NOV 24 2014**

Describe Area Affected and Cleanup Action Taken.\* Borehole drilling was done to collect soil samples and determine vertical and lateral extent of the contamination. Groundwater was found 4' below the surface. Excavation was done to remove impacted soil. Approximately 17,400 cubic yards of impacted soil was taken to the IEI landfarm for treatment. Excavation continued until remaining soil samples resulted in less than 100 ppm TPH. The excavated area was backfilled with clean soil. Monitor wells were installed in the center of the excavated area and at the former locations of the below grade tanks. Monitor wells have been sampled and results will be reported when they are received. At the request of the landowner BP sampled a nearby domestic water well. No impacts to the water well were found.

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: Jeff Peace	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>5/6/15</u>	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: November 21, 2014	Phone: 505-326-9479	

\* Attach Additional Sheets If Necessary

Gw Samples Req For  
Closure  
#NCS 1512730205

(126)

**BP America: Lobato GC D 1**  
**(D) Sec 3 – T29N – R9W**  
**San Juan County, New Mexico**

Summary Record of Impact Remediation

May 2, 2012 Soil impacts encountered during closure of 21 barrel BGT, 95 barrel BGT and removal of subsurface piping and facilities. Original source of impacts not evident, but appeared to be widespread on well pad. Groundwater encountered at a depth of approximately 4 feet below grade.

March 19, 2014 Begin remediation of site by excavation of impacts. Delineation of soil impacts by digging test holes with trackhoe determined that impacts did not extend to San Juan River but did advance off the fenced well pad to the southwest.

June 27, 2014 Complete remediation by excavation. Side wall soil samples in all directions tested below site closure standards (100 ppm TPH, 10 ppm Benzene, 50 ppm BTEX, 100 ppm Chlorides). Excavation size approximately 375' x 180', average depth excavated about 7 feet (3' below water table). Approximately 17,400 cubic yards soil transported to BP operated Crouch Mesa Landfarm for final remediation.

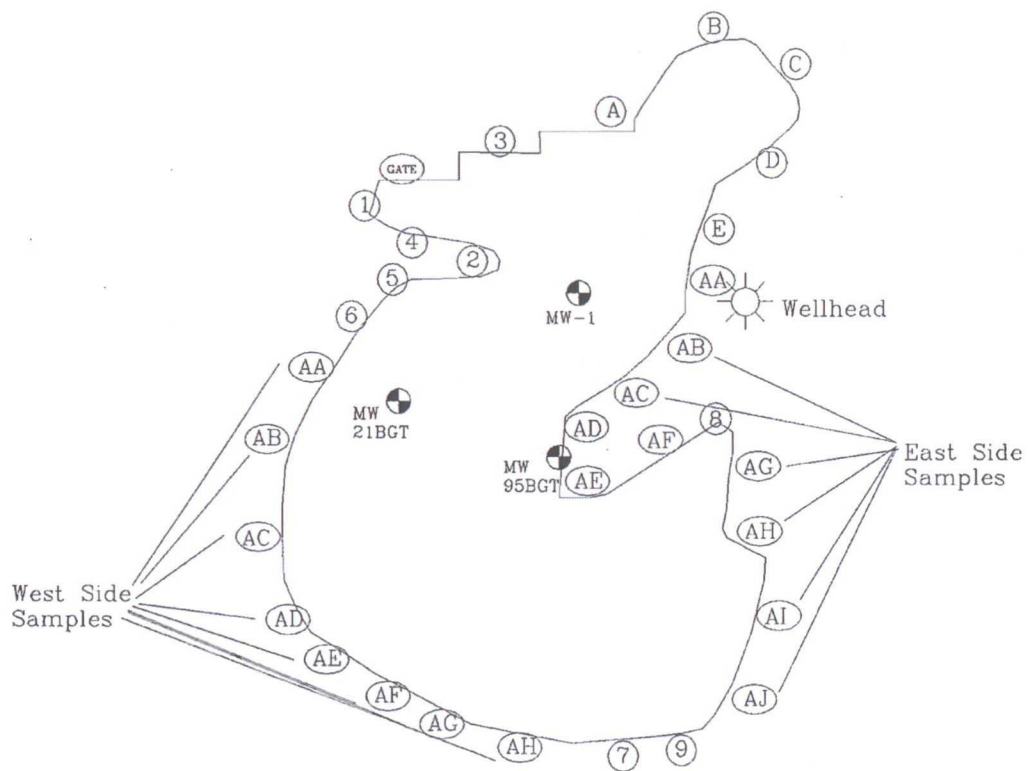
July 24, 2014 Sampled Schofield domestic water well (dormant well, not in service, no pump in well) located about 600 feet north of Lobato GC D 1 well site. Analytical test results determined water not impacted by the prior release at the Lobato well pad.

October 23-24, 2014 Installed groundwater monitor wells at excavation center and locations of 21 bbl BGT and 95 bbl BGT.

November 7 and 14, 2014 Develop monitor wells by pumping/bailing. Remove sediment load from wells until clear water visually evident.

November 20, 2014 Sample monitor wells for BTEX and cation/anion analysis.





# LEGEND



0 100 200 Feet

## SITE EXCAVATION DIAGRAM

BP \*\* LOBATO GC D1 \*\* (D)3-T29N-R9W

BLAGG ENGINEERING, INC.

DATE: 8/2014

FIGURE 1

BY: JCB

P.O. BOX 87, BLOOMFIELD, NM  
PHONE: (505)632-1199

# Lobato GC D 1

Middle Source Area (Drill Spot "C")

Prior 21 BGT (Drill Spot "A")

Lobato GC D 1 Wellhead

Prior 95 BGT (Drill Spot "B")

Final Excavation Area

Google earth

1997

Imagery Date: 11/17/2013 36°45'26.77" N 107°46'25.66" W elev 5617 ft eye alt 6341 ft



# BP America – Summary Lab Data

Lobato GC D 1 – (D) Section 3 – T29N – R9W

Map ID	Sample Date	Sampling Depth	Total TPH 8015B (mg/Kg)	Total BTEX 8021 (mg/Kg)	Chloride (mg/Kg)
1	3/27/14	Grab at 6'	ND	ND	ND
2	3/28/14	Grab at 6'	ND	ND	4.4
3	4/2/14	4-pt @ 4'	ND	ND	ND
4	4/22/14	3'pt @ 4'	ND	ND	ND
5	4/23/14	5-pt @ 4'	ND	ND	ND
6	4/28/14	3-pt @ 6'	ND	ND	ND
7	6/19/14	3-pt @ 3.5'	ND	ND	ND
8	6/24/14	3-pt @ 3.5'	ND	ND	ND
9	6/24/14	3-pt @ 3'	44	ND	ND
Gate	4/22/14	3-pt @ 4'	ND	ND	ND
A	4/10/14	3-pt @ 4'	ND	ND	ND
B	4/10/14	3-pt @ 4'	ND	ND	ND
C	4/10/14	3-pt @ 4'	ND	ND	ND
D	4/10/14	3-pt @ 4'	ND	ND	ND
E	4/10/14	3-pt @ 4'	ND	ND	ND
East AA	4/15/14	3-pt @ 4'	ND	ND	ND
East AB	4/18/14	5-PT @ 4'	ND	ND	ND
East AC	4/21/14	3-pt @ 4'	ND	ND	ND
East AD	4/28/14	3-pt @ 4'	ND	ND	ND
East AE	5/1/14	3-pt @ 4'	23	ND	ND
East AF	6/27/14	3-pt @ 4'	ND	ND	ND
East AG	6/27/14	3-pt @ 4'	ND	ND	ND
East AH	6/27/14	3-pt @ 4'	ND	ND	ND
East AI	6/27/14	3-pt @ 4'	43	ND	ND
East AJ	6/27/14	3-pt @ 4'	49	ND	ND
West AA	5/15/14	3-pt @ 6'	ND	ND	ND
West AB	5/15/14	3-pt @ 6'	ND	ND	ND
West AC	5/16/14	3-pt @ 6'	ND	ND	ND
West AD	5/23/14	3-pt @ 4'	ND	ND	ND
West AE	5/23/14	3-pt @ 4'	ND	ND	ND
West AF	5/23/14	3-pt @ 4'	ND	ND	ND
West AG	5/23/14	3-pt @ 4'	ND	ND	ND
West AH	5/23/14	3-pt @ 4'	ND	ND	ND
West AI	5/23/14	3-pt @ 4'	ND	ND	ND



## Analytical Report

Lab Order 1403B86

Date Reported: 4/1/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 186°N78W@6'

Project: Lobato GC D #1

Collection Date: 3/27/2014 12:48:00 PM

Lab ID: 1403B86-001

Matrix: MEOH (SOIL)

Received Date: 3/28/2014 10:00:00 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	9.9		mg/Kg	1	3/28/2014 12:53:19 PM	12395
Surr: DNOP	92.5	66-131		%REC	1	3/28/2014 12:53:19 PM	12395
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/28/2014 11:14:15 AM	R17646
Surr: BFB	83.5	74.5-129		%REC	1	3/28/2014 11:14:15 AM	R17646
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.036		mg/Kg	1	3/28/2014 11:14:15 AM	R17646
Toluene	ND	0.036		mg/Kg	1	3/28/2014 11:14:15 AM	R17646
Ethylbenzene	ND	0.036		mg/Kg	1	3/28/2014 11:14:15 AM	R17646
Xylenes, Total	ND	0.072		mg/Kg	1	3/28/2014 11:14:15 AM	R17646
Surr: 4-Bromofluorobenzene	84.0	80-120		%REC	1	3/28/2014 11:14:15 AM	R17646
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/28/2014 11:35:15 AM	12426

Sample ID: 1

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 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#: 1403B86

01-Apr-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	MB-12426	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12426	RunNo:	17682					
Prep Date:	3/28/2014	Analysis Date:	3/28/2014	SeqNo:	509082	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12426	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12426	RunNo:	17682					
Prep Date:	3/28/2014	Analysis Date:	3/28/2014	SeqNo:	509083	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	90	110			

Sample ID	1403B02-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	12426	RunNo:	17682					
Prep Date:	3/28/2014	Analysis Date:	3/28/2014	SeqNo:	509096	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	1.5	15.00	2.774	94.9	71.3	115			H

Sample ID	1403B02-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	12426	RunNo:	17682					
Prep Date:	3/28/2014	Analysis Date:	3/28/2014	SeqNo:	509097	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	1.5	15.00	2.774	95.1	71.3	115	0.256	20	H

## 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403B86

01-Apr-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	MB-12395	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12395	RunNo:	17640					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	507988	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	9.1		10.00		91.0	66	131			

Sample ID	LCS-12395	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12395	RunNo:	17640					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	508085	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	92.6	60.8	145			
Surr: DNOP	4.4		5.000		87.2	66	131			

## 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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403B86

01-Apr-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R17646	RunNo:	17646					
Prep Date:		Analysis Date:	3/28/2014	SeqNo:	508815	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	910		1000		90.7	74.5	129			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R17646	RunNo:	17646					
Prep Date:		Analysis Date:	3/28/2014	SeqNo:	508817	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.6	71.7	134			
Surr: BFB	780		1000		78.3	74.5	129			

Sample ID	1403B86-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	186'N78W@6'	Batch ID:	R17646	RunNo:	17646					
Prep Date:		Analysis Date:	3/28/2014	SeqNo:	508819	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.6	17.95	0	95.6	69.5	145			
Surr: BFB	670		717.9		93.1	74.5	129			

Sample ID	1403B86-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	186'N78W@6'	Batch ID:	R17646	RunNo:	17646					
Prep Date:		Analysis Date:	3/28/2014	SeqNo:	508820	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.6	17.95	0	93.7	69.5	145	2.07	20	
Surr: BFB	700		717.9		97.0	74.5	129	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 greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403B86

01-Apr-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R17646		RunNo:	17646			
Prep Date:			Analysis Date:	3/28/2014		SeqNo:	508827		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	0.91		1.000		91.0	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R17646		RunNo:	17646			
Prep Date:			Analysis Date:	3/28/2014		SeqNo:	508829		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID	1403B84-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	R17646		RunNo:	17646			
Prep Date:			Analysis Date:	3/28/2014		SeqNo:	508832		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.040	0.7937	0	93.1	67.4	135			
Toluene	0.74	0.040	0.7937	0	93.5	72.6	135			
Ethylbenzene	0.74	0.040	0.7937	0.003334	92.9	69.4	143			
Xylenes, Total	2.3	0.079	2.381	0	96.6	70.8	144			
Surr: 4-Bromofluorobenzene	0.58		0.7937		72.6	80	120			S

Sample ID	1403B84-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	R17646		RunNo:	17646			
Prep Date:			Analysis Date:	3/28/2014		SeqNo:	508833		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.040	0.7937	0	91.0	67.4	135	2.24	20	
Toluene	0.72	0.040	0.7937	0	90.5	72.6	135	3.26	20	
Ethylbenzene	0.72	0.040	0.7937	0.003334	90.9	69.4	143	2.13	20	
Xylenes, Total	2.2	0.079	2.381	0	94.3	70.8	144	2.43	20	
Surr: 4-Bromofluorobenzene	0.78		0.7937		97.7	80	120	0	0	

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- 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



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1403B86

RcptNo: 1

Received by/date:

MS 03/28/14

Logged By: Lindsay Mangin

3/28/2014 10:00:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

3/28/2014 10:14:17 AM

*Lindsay Mangin*

Reviewed By:

CS

03/28/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



<h1>Chain-of-Custody Record</h1>		Turn-Around Time: <u>By Monday 3-31-2014</u>
Client: <u>BLADE ENGINEERING INC.</u>	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush	
<u>BP AMERICA</u>	Project Name: <u>LOBATO GC D#1</u>	
Mailing Address: <u>P.O. Box 87</u>	Project #:	
<u>BLOOMFIELD NM 87413</u>	Project Manager: <u>J. BLADE</u>	
Phone #: <u>505-632-1199</u>	Sampler: <u>J. BLADE</u>	
Email or Fax#:	<input checked="" type="checkbox"/> On Ice <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
QA/QC Package:	Sample Temperature: <u>10</u>	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation:		
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		
<input type="checkbox"/> EDD (Type) _____		

☐ Standard ☒ Rush

Project #:

Project Manager:  
J. B. Allen

Sampler: J. Blabb

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

Container Type and #	Preservative Type
-------------------------	----------------------

HEAL No.

140358L  
-00d

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

X	BTEX + <del>MTBE</del> + <del>TMB's</del> (8021)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (GRO / DRO / <del>MBDO</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)
X	CHLORIDE
	Air Bubbles (Y or N)

Date:	Time:	Relinquished by:
2/20/14	1522	Jeff Brey

late:	Time:	Relinquished by:
0/14	1742	Christine Waller

Received by:	Date	Time
<i>Christina Jones</i>	3/27/2014	1522

Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
M. White 03/28/14 1000

Remarks:	Bill BuAb66
----------	-------------

EMAIL to [peace.jeffrey@BP.com](mailto:peace.jeffrey@BP.com)

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 **1403C25**

Date Reported: 4/1/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** LOBATO GC D1**Lab ID:** 1403C25-001**Matrix:** SOIL**Client Sample ID:** 140 'N57W @ 6'**Collection Date:** 3/28/2014 9:45:00 AM**Received Date:** 3/29/2014 10:05:00 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	3/31/2014 12:15:41 PM	12452
Surr: DNOP	92.6	66-131		%REC	1	3/31/2014 12:15:41 PM	12452
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	3/31/2014 1:41:13 PM	R17693
Surr: BFB	87.0	74.5-129		%REC	1	3/31/2014 1:41:13 PM	R17693
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.032		mg/Kg	1	3/31/2014 1:41:13 PM	R17693
Toluene	ND	0.032		mg/Kg	1	3/31/2014 1:41:13 PM	R17693
Ethylbenzene	ND	0.032		mg/Kg	1	3/31/2014 1:41:13 PM	R17693
Xylenes, Total	ND	0.064		mg/Kg	1	3/31/2014 1:41:13 PM	R17693
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	3/31/2014 1:41:13 PM	R17693
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	4.4	1.5		mg/Kg	1	3/31/2014 11:15:30 AM	12443

**Sample ID: 2**

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 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#: 1403C25

01-Apr-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12443	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12443	RunNo:	17704					
Prep Date:	3/31/2014	Analysis Date:	3/31/2014	SeqNo:	509810	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12443	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12443	RunNo:	17704					
Prep Date:	3/31/2014	Analysis Date:	3/31/2014	SeqNo:	509811	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	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 greater than 2.  
RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403C25

01-Apr-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12452	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12452			RunNo: 17675					
Prep Date:	3/31/2014	Analysis Date: 3/31/2014			SeqNo: 509001		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	8.4		10.00		84.0	66	131			

Sample ID	LCS-12452	SampType: LCS			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 12452			RunNo: 17675					
Prep Date:	3/31/2014	Analysis Date: 3/31/2014			SeqNo: 509002		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	92.5	60.8	145			
Surr: DNOP	4.1		5.000		81.3	66	131			

## 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403C25

01-Apr-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12427 MK		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R17693		RunNo: 17693					
Prep Date:			Analysis Date: 3/31/2014		SeqNo: 509554		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	860		1000		85.6	74.5	129			

Sample ID	LCS-12427 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R17693		RunNo: 17693					
Prep Date:			Analysis Date: 3/31/2014		SeqNo: 509569		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	71.7	134			
Surr: BFB	950		1000		94.9	74.5	129			

## 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403C25

01-Apr-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12427 MK	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R17693			RunNo: 17693					
Prep Date:		Analysis Date: 3/31/2014			SeqNo: 509703		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-12427 MK	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: R17693			RunNo: 17693					
Prep Date:		Analysis Date: 3/31/2014			SeqNo: 509704		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	110	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	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





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: 1403C25

RcptNo: 1

Received by/date: At 03/29/14

Logged By: Anne Thorne 3/29/2014 10:05:00 AM

*Anne Thorne*

Completed By: Anne Thorne 3/31/2014

*Anne Thorne*

Reviewed By: At 03/31/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.3	Good	Yes			



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1404205

Date Reported: 4/11/2014

CLIENT: Blagg Engineering

Client Sample ID: North Wall 4-pt @ 4'

Project: Lobato GC D1

Collection Date: 4/2/2014 12:05:00 PM

Lab ID: 1404205-001

Matrix: SOIL

Received Date: 4/4/2014 10:00:00 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	4/7/2014 4:31:45 PM	12545
Surr: DNOP	78.7	66-131		%REC	1	4/7/2014 4:31:45 PM	12545
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/7/2014 12:12:08 PM	12550
Surr: BFB	87.0	74.5-129		%REC	1	4/7/2014 12:12:08 PM	12550
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/7/2014 12:12:08 PM	12550
Toluene	ND	0.047		mg/Kg	1	4/7/2014 12:12:08 PM	12550
Ethylbenzene	ND	0.047		mg/Kg	1	4/7/2014 12:12:08 PM	12550
Xylenes, Total	ND	0.093		mg/Kg	1	4/7/2014 12:12:08 PM	12550
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/7/2014 12:12:08 PM	12550
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 11:44:38 PM	12578

Sample ID: 3

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		

Page 1 of 5

20



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404205

11-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12578	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12578	RunNo:	17852					
Prep Date:	4/7/2014	Analysis Date:	4/7/2014	SeqNo:	514831	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12578	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12578	RunNo:	17852					
Prep Date:	4/7/2014	Analysis Date:	4/7/2014	SeqNo:	514832	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	5.000	0	278	90	110			S

### 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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404205

11-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12545	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12545			RunNo: 17793					
Prep Date:	4/4/2014	Analysis Date: 4/4/2014			SeqNo: 513063		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	7.4		10.00		74.3	66	131			

Sample ID	LCS-12545	SampType: LCS			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 12545			RunNo: 17793					
Prep Date:	4/4/2014	Analysis Date: 4/4/2014			SeqNo: 513064		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	92.5	60.8	145			
Surr: DNOP	3.8		5.000		75.3	66	131			

Sample ID	MB-12557	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12557			RunNo: 17845					
Prep Date:	4/7/2014	Analysis Date: 4/8/2014			SeqNo: 514590		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.4		10.00		74.0	66	131			

Sample ID	LCS-12557	SampType: LCS			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 12557			RunNo: 17845					
Prep Date:	4/7/2014	Analysis Date: 4/8/2014			SeqNo: 514592		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.4	66	131			

### 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404205

11-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12550		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 12550		RunNo: 17826					
Prep Date:	4/4/2014		Analysis Date: 4/7/2014		SeqNo: 514468		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	860		1000		86.2	74.5	129			

Sample ID	LCS-12550		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 12550		RunNo: 17826					
Prep Date:	4/4/2014		Analysis Date: 4/7/2014		SeqNo: 514469		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	71.7	134			
Surr: BFB	930		1000		93.3	74.5	129			

## 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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404205

11-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12550	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 12550			RunNo: 17826					
Prep Date:	4/4/2014	Analysis Date: 4/7/2014			SeqNo: 514510		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		104	80	120			

Sample ID	LCS-12550	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 12550			RunNo: 17826					
Prep Date:	4/4/2014	Analysis Date: 4/7/2014			SeqNo: 514511		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	110	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	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: **1404205**

RcptNo: **1**

Received by/date:

*AG* **04/04/14**

Logged By: **Michelle Garcia**

**4/4/2014 10:00:00 AM**

*Michelle Garcia*

Completed By: **Michelle Garcia**

**4/4/2014 10:19:39 AM**

*Michelle Garcia*

Reviewed By:

*AG* **04/04/14**

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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	1.0	Good	Yes			

Client: Blagg Engineering, Inc.

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) \_\_\_\_\_

☐ Standard ☒ Rush 4-8-2014

Project Name: Lobato GC D1

Project #:

Project Manager: Jeff Blagg

Sampler: Jeff Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 6.0



# 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 (8021)	TPH 8015B (GRO / DRO)	Chloride	Air Bubbles (Y or N)
04/02/2014	12:05	Soil	North Wall 4-pt @ 4'	4oz x 1	cool	1404205 -001	x	x	x	

Date: 4/3/2014	Time: 1600	Relinquished by: Jeff Blagg	Received by: Christina White	Date: 4/3/2014	Time: 1600
Date: 4/3/14	Time: 1729	Relinquished by: Christina White	Received by: Ashley Blagg	Date: 04/04/14	Time: 1000

Remarks: Bill Blagg  
BP Contact: Jeff Peace  
peace.jeffrey@bp.com

Please copy results to:

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 1404596

Date Reported: 4/22/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** NE Wall A: 3-pt @ 4'**Project:** Lobato GC D1**Collection Date:** 4/10/2014 12:30:00 PM**Lab ID:** 1404596-001**Matrix:** SOIL**Received Date:** 4/12/2014 12:00:00 PM

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	9.9		mg/Kg	1	4/15/2014 9:52:50 PM	12676
Surr: DNOP	76.9	66-131		%REC	1	4/15/2014 9:52:50 PM	12676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/16/2014 2:56:57 AM	12692
Surr: BFB	87.5	74.5-129		%REC	1	4/16/2014 2:56:57 AM	12692
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.049		mg/Kg	1	4/16/2014 2:56:57 AM	12692
Toluene	ND	0.049		mg/Kg	1	4/16/2014 2:56:57 AM	12692
Ethylbenzene	ND	0.049		mg/Kg	1	4/16/2014 2:56:57 AM	12692
Xylenes, Total	ND	0.098		mg/Kg	1	4/16/2014 2:56:57 AM	12692
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	4/16/2014 2:56:57 AM	12692
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/15/2014 1:26:17 PM	12716

**Sample ID: A**

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 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:** NE Wall B: 3-pt @ 4'  
**Project:** Lobato GC D1 **Collection Date:** 4/10/2014 12:40:00 PM  
**Lab ID:** 1404596-002 **Matrix:** SOIL **Received Date:** 4/12/2014 12:00:00 PM

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	4/15/2014 10:14:56 PM	12676
Surr: DNOP	74.4	66-131		%REC	1	4/15/2014 10:14:56 PM	12676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/16/2014 3:25:34 AM	12692
Surr: BFB	87.8	74.5-129		%REC	1	4/16/2014 3:25:34 AM	12692
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.047		mg/Kg	1	4/16/2014 3:25:34 AM	12692
Toluene	ND	0.047		mg/Kg	1	4/16/2014 3:25:34 AM	12692
Ethylbenzene	ND	0.047		mg/Kg	1	4/16/2014 3:25:34 AM	12692
Xylenes, Total	ND	0.093		mg/Kg	1	4/16/2014 3:25:34 AM	12692
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	4/16/2014 3:25:34 AM	12692
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/15/2014 1:38:42 PM	12716

Sample ID: B

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 2 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 greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

## Analytical Report

Lab Order 1404596

Date Reported: 4/22/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: NE Wall C: 3-pt @ 4'

Project: Lobato GC D1

Collection Date: 4/10/2014 12:50:00 PM

Lab ID: 1404596-003

Matrix: SOIL

Received Date: 4/12/2014 12:00:00 PM

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	9.9		mg/Kg	1	4/15/2014 10:37:02 PM	12676
Surr: DNOP	82.1	66-131		%REC	1	4/15/2014 10:37:02 PM	12676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/16/2014 3:54:09 AM	12692
Surr: BFB	87.8	74.5-129		%REC	1	4/16/2014 3:54:09 AM	12692
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.047		mg/Kg	1	4/16/2014 3:54:09 AM	12692
Toluene	ND	0.047		mg/Kg	1	4/16/2014 3:54:09 AM	12692
Ethylbenzene	ND	0.047		mg/Kg	1	4/16/2014 3:54:09 AM	12692
Xylenes, Total	ND	0.093		mg/Kg	1	4/16/2014 3:54:09 AM	12692
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/16/2014 3:54:09 AM	12692
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/15/2014 2:15:55 PM	12716

Sample ID: C

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



# Analytical Report

Lab Order 1404596

Date Reported: 4/22/2014

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Blagg Engineering

**Project:** Lobato GC D1

**Lab ID:** 1404596-004

**Matrix:** SOIL

**Client Sample ID:** NE Wall D: 3-pt @ 4'

**Collection Date:** 4/10/2014 1:00:00 PM

**Received Date:** 4/12/2014 12:00:00 PM

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	9.9		mg/Kg	1	4/15/2014 10:59:06 PM	12676
Surr: DNOP	84.6	66-131		%REC	1	4/15/2014 10:59:06 PM	12676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/16/2014 2:22:26 PM	12692
Surr: BFB	84.2	74.5-129		%REC	1	4/16/2014 2:22:26 PM	12692
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.048		mg/Kg	1	4/16/2014 2:22:26 PM	12692
Toluene	ND	0.048		mg/Kg	1	4/16/2014 2:22:26 PM	12692
Ethylbenzene	ND	0.048		mg/Kg	1	4/16/2014 2:22:26 PM	12692
Xylenes, Total	ND	0.096		mg/Kg	1	4/16/2014 2:22:26 PM	12692
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	4/16/2014 2:22:26 PM	12692
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/15/2014 2:28:20 PM	12716

Sample ID: D

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Analytical Report**Lab Order **1404596**Date Reported: **4/22/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D1**Lab ID:** 1404596-005**Matrix:** SOIL**Client Sample ID:** NE Wall E: 3-pt @ 4'**Collection Date:** 4/10/2014 1:10:00 PM**Received Date:** 4/12/2014 12:00:00 PM

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	9.9		mg/Kg	1	4/15/2014 11:21:07 PM	12676
Surr: DNOP	74.4	66-131		%REC	1	4/15/2014 11:21:07 PM	12676
<b>EPA METHOD 8015D: GASOLINE RANGE</b>				Analyst: <b>RAA</b>			
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/16/2014 2:51:06 PM	12692
Surr: BFB	84.9	74.5-129		%REC	1	4/16/2014 2:51:06 PM	12692
<b>EPA METHOD 8021B: VOLATILES</b>				Analyst: <b>RAA</b>			
Benzene	ND	0.047		mg/Kg	1	4/16/2014 2:51:06 PM	12692
Toluene	ND	0.047		mg/Kg	1	4/16/2014 2:51:06 PM	12692
Ethylbenzene	ND	0.047		mg/Kg	1	4/16/2014 2:51:06 PM	12692
Xylenes, Total	ND	0.094		mg/Kg	1	4/16/2014 2:51:06 PM	12692
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	4/16/2014 2:51:06 PM	12692
<b>EPA METHOD 300.0: ANIONS</b>				Analyst: <b>JRR</b>			
Chloride	ND	30		mg/Kg	20	4/15/2014 2:40:46 PM	12716

**Sample ID: E**

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 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#: 1404596

22-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12676		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 12676		RunNo: 17956					
Prep Date:	4/11/2014		Analysis Date: 4/14/2014		SeqNo: 518235		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	7.2		10.00		71.6	66	131			

Sample ID	LCS-12676		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12676		RunNo: 17956					
Prep Date:	4/11/2014		Analysis Date: 4/14/2014		SeqNo: 518236		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.1	60.8	145			
Surr: DNOP	3.6		5.000		72.1	66	131			

Sample ID	MB-12726		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 12726		RunNo: 18017					
Prep Date:	4/15/2014		Analysis Date: 4/17/2014		SeqNo: 521794		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		84.4	57.9	140			

Sample ID	LCS-12726		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12726		RunNo: 18017					
Prep Date:	4/15/2014		Analysis Date: 4/17/2014		SeqNo: 521795		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.4	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 greater than 2.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404596

22-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12692		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 12692		RunNo: 17997					
Prep Date:	4/14/2014		Analysis Date: 4/15/2014		SeqNo: 519538		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	870		1000		86.9	74.5	129			

Sample ID	LCS-12692		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 12692		RunNo: 17997					
Prep Date:	4/14/2014		Analysis Date: 4/15/2014		SeqNo: 519539		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	96.3	71.7	134			
Surr: BFB	920		1000		91.9	74.5	129			

## 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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404596

22-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12692	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 12692			RunNo: 17997					
Prep Date:	4/14/2014	Analysis Date: 4/15/2014			SeqNo: 519613		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		104	80	120			

Sample ID	LCS-12692		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 12692		RunNo: 17997					
Prep Date:	4/14/2014		Analysis Date: 4/15/2014		SeqNo: 519614		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	110	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	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



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: **1404596**

RcptNo: 1

Received by/date:

AF

02/12/14

Logged By: **Lindsay Mangin**

4/12/2014 12:00:00 PM

*Lindsay Mangin*

Completed By: **Lindsay Mangin**

4/14/2014 8:39:53 AM

*Lindsay Mangin*

Reviewed By:

*[Signature]*

04/14/2014

### 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	4.1	Good	Yes			





**Analytical Report**Lab Order **1404820**Date Reported: **4/23/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D1**Lab ID:** 1404820-001**Matrix:** SOIL**Client Sample ID:** E Wall AA: 3-pt @ 4'**Collection Date:** 4/15/2014 3:15:00 PM**Received Date:** 4/17/2014 10:10:00 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	4/18/2014 9:09:33 PM	12758
Surr: DNOP	146	57.9-140	S	%REC	1	4/18/2014 9:09:33 PM	12758
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/19/2014 4:00:52 AM	12765
Surr: BFB	88.2	74.5-129		%REC	1	4/19/2014 4:00:52 AM	12765
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.049		mg/Kg	1	4/19/2014 4:00:52 AM	12765
Toluene	ND	0.049		mg/Kg	1	4/19/2014 4:00:52 AM	12765
Ethylbenzene	ND	0.049		mg/Kg	1	4/19/2014 4:00:52 AM	12765
Xylenes, Total	ND	0.097		mg/Kg	1	4/19/2014 4:00:52 AM	12765
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/19/2014 4:00:52 AM	12765
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/18/2014 5:19:47 PM	12780

**Sample ID: AA (East Side)**

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 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#: 1404820

23-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12780	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12780	RunNo:	18105					
Prep Date:	4/18/2014	Analysis Date:	4/18/2014	SeqNo:	522731	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12780	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12780	RunNo:	18105					
Prep Date:	4/18/2014	Analysis Date:	4/18/2014	SeqNo:	522732	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	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.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404820

23-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12758	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12758			RunNo: 18068					
Prep Date:	4/17/2014	Analysis Date: 4/18/2014			SeqNo: 521273		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-12758		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12758		RunNo: 18068					
Prep Date:	4/17/2014		Analysis Date: 4/18/2014		SeqNo: 521275		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	91.4	60.8	145			
Surr: DNOP	4.4		5.000		88.6	57.9	140			

Sample ID	MB-12781	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12781			RunNo: 18068					
Prep Date:	4/18/2014	Analysis Date: 4/18/2014			SeqNo: 521276		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.0	57.9	140			

Sample ID	LCS-12781		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12781		RunNo: 18068					
Prep Date:	4/18/2014		Analysis Date: 4/18/2014		SeqNo: 521898		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.5	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 greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404820

23-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12765 MK		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R18084		RunNo: 18084					
Prep Date:			Analysis Date: 4/18/2014		SeqNo: 522566		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		85.6	74.5	129			

Sample ID	LCS-12765 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R18084		RunNo: 18084					
Prep Date:			Analysis Date: 4/18/2014		SeqNo: 522567		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.5	74.5	129			

Sample ID	MB-12765		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 12765		RunNo: 18084					
Prep Date:	4/17/2014		Analysis Date: 4/18/2014		SeqNo: 522600		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	860		1000		85.6	74.5	129			

Sample ID	LCS-12765		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 12765		RunNo: 18084					
Prep Date:	4/17/2014		Analysis Date: 4/18/2014		SeqNo: 522601		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	97.9	71.7	134			
Surr: BFB	910		1000		91.5	74.5	129			

### 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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404820

23-Apr-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12765		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 12765		RunNo: 18084					
Prep Date:	4/17/2014		Analysis Date: 4/18/2014		SeqNo: 522634		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		102	80	120			

Sample ID	LCS-12765		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 12765		RunNo: 18084					
Prep Date:	4/17/2014		Analysis Date: 4/18/2014		SeqNo: 522635		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	109	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	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: **1404820**

ReptNo: 1

Received by/date:

Logged By: **Ashley Gallegos**

**04/17/14**  
4/17/2014 10:10:00 AM

Completed By: **Ashley Gallegos**

4/17/2014 12:06:01 PM

Reviewed By:

**CS**

**04/17/14**

### 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?           | <u>Courier</u> |    |               |

### 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?<br>(Note discrepancies on chain of custody)       | Yes ✓ | No   | # of preserved bottles checked for pH:<br>(<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?<br>(If no, notify customer for authorization.) | Yes ✓ | No   | Checked by:  |

### Special Handling (If applicable)

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

Person Notified:

Date:

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			



## Analytical Report

Lab Order 1404999

Date Reported: 5/1/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: EAST WALL AB 5-pt @ 4'

Project: LOBATO GC D1

Collection Date: 4/18/2014 12:40:00 PM

Lab ID: 1404999-001

Matrix: SOIL

Received Date: 4/23/2014 10:02:00 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	9.9		mg/Kg	1	4/25/2014 10:26:50 AM	12862
Surr: DNOP	89.5	57.9-140		%REC	1	4/25/2014 10:26:50 AM	12862
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/25/2014 1:59:11 PM	12866
Surr: BFB	82.7	74.5-129		%REC	1	4/25/2014 1:59:11 PM	12866
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	4/25/2014 1:59:11 PM	12866
Toluene	ND	0.048		mg/Kg	1	4/25/2014 1:59:11 PM	12866
Ethylbenzene	ND	0.048		mg/Kg	1	4/25/2014 1:59:11 PM	12866
Xylenes, Total	ND	0.097		mg/Kg	1	4/25/2014 1:59:11 PM	12866
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	4/25/2014 1:59:11 PM	12866
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/29/2014 2:38:18 PM	12928

Sample ID: AB (East Side)

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 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:** EAST WALL AC 3-pt @ 4'  
**Project:** LOBATO GC D1 **Collection Date:** 4/21/2014 1:15:00 PM  
**Lab ID:** 1404999-002 **Matrix:** SOIL **Received Date:** 4/23/2014 10:02:00 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	9.9		mg/Kg	1	4/25/2014 10:57:50 AM	12862
Surr: DNOP	96.3	57.9-140		%REC	1	4/25/2014 10:57:50 AM	12862
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/25/2014 3:25:10 PM	12866
Surr: BFB	84.4	74.5-129		%REC	1	4/25/2014 3:25:10 PM	12866
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/25/2014 3:25:10 PM	12866
Toluene	ND	0.047		mg/Kg	1	4/25/2014 3:25:10 PM	12866
Ethylbenzene	ND	0.047		mg/Kg	1	4/25/2014 3:25:10 PM	12866
Xylenes, Total	ND	0.094		mg/Kg	1	4/25/2014 3:25:10 PM	12866
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	4/25/2014 3:25:10 PM	12866
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/29/2014 2:50:43 PM	12928

Sample ID: AC (East Side)

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 2 of 6
	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#: 1404999

01-May-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12928	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12928	RunNo:	18296					
Prep Date:	4/29/2014	Analysis Date:	4/29/2014	SeqNo:	528344	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12928	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12928	RunNo:	18296					
Prep Date:	4/29/2014	Analysis Date:	4/29/2014	SeqNo:	528345	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	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.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404999

01-May-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12862	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12862	RunNo:	18177					
Prep Date:	4/24/2014	Analysis Date:	4/24/2014	SeqNo:	524869	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	8.9		10.00		89.4	57.9	140			

Sample ID	LCS-12862	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12862	RunNo:	18177					
Prep Date:	4/24/2014	Analysis Date:	4/24/2014	SeqNo:	524871	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	95.3	60.8	145			
Surr: DNOP	4.4		5.000		87.3	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 greater than 2.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404999

01-May-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	MB-12866	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: 12866			RunNo: 18222					
Prep Date:	4/24/2014	Analysis Date: 4/25/2014			SeqNo: 526081		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	830		1000		83.2	74.5	129			

Sample ID	LCS-12866		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 12866		RunNo: 18222					
Prep Date:	4/24/2014		Analysis Date: 4/25/2014		SeqNo: 526082		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	94.7	71.7	134			
Surr: BFB	920		1000		91.6	74.5	129			

Sample ID	1404999-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	EAST WALL AB 5-pt		Batch ID: 12866		RunNo: 18222					
Prep Date:	4/24/2014		Analysis Date: 4/25/2014		SeqNo: 526088		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.20	0	107	69.5	145			
Surr: BFB	900		968.1		92.5	74.5	129			

Sample ID	1404999-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	EAST WALL AB 5-pt		Batch ID: 12866		RunNo: 18222					
Prep Date:	4/24/2014		Analysis Date: 4/25/2014		SeqNo: 526089		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	24.20	0	101	69.5	145	6.06	20	
Surr: BFB	880		968.1		91.0	74.5	129	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.  
RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404999

01-May-14

Client: Blagg Engineering

Project: LOBATO GC D1

Sample ID	1404999-002AMS	SampType:	MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	EAST WALL AC 3-pt	Batch ID:	12866	RunNo: 18222						
Prep Date:	4/24/2014	Analysis Date:	4/25/2014	SeqNo: 526104			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.047	0.9497	0	107	67.4	135			
Toluene	0.99	0.047	0.9497	0.008187	103	72.6	135			
Ethylbenzene	1.0	0.047	0.9497	0	106	69.4	143			
Xylenes, Total	3.0	0.095	2.849	0.01277	106	70.8	144			
Surr: 4-Bromofluorobenzene	0.96		0.9497		101	80	120			

Sample ID	1404999-002AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID:	EAST WALL AC 3-pt	Batch ID: 12866		RunNo: 18222						
Prep Date:	4/24/2014	Analysis Date: 4/25/2014		SeqNo: 526105			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.047	0.9425	0	106	67.4	135	0.864	20	
Toluene	0.97	0.047	0.9425	0.008187	102	72.6	135	2.07	20	
Ethylbenzene	1.0	0.047	0.9425	0	106	69.4	143	0.393	20	
Xylenes, Total	3.0	0.094	2.828	0.01277	104	70.8	144	2.25	20	
Surr: 4-Bromofluorobenzene	0.97		0.9425		103	80	120	0	0	

Sample ID	MB-12866	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 12866			RunNo: 18222					
Prep Date:	4/24/2014	Analysis Date: 4/25/2014			SeqNo: 526108		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	0.98		1.000		97.6	80	120			

Sample ID	LCS-12866	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 12866			RunNo: 18222					
Prep Date:	4/24/2014	Analysis Date: 4/25/2014			SeqNo: 526109		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	105	80	120			
Toluene	0.98	0.050	1.000	0	97.7	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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: **1404999**

RcptNo: **1**

Received by/date: CS 04/23/14

Logged By: **Anne Thorne**

4/23/2014 10:02:00 AM

*Anne Thorne*

Completed By: **Anne Thorne**

4/24/2014

*Anne Thorne*

Reviewed By: *[Signature]*

04/24/14

## 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	3.2	Good	Yes			

Turn-Around Time:

☒ Standard ☐ Rush

LOBATO GC D 1

Project Manager:

Sampler: I- Bu466

Sample Temperature: 3.2°

Container Type and #	Preservative Type	HEAL No 1404999
-------------------------	----------------------	--------------------

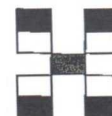
11	11	11
11	11	11


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Received by:	Date	Time
M. M. W. W.	6/22/14	1424

Celanu Jim 04/23/14 10:02



[www.hallenvironmental.com](http://www.hallenvironmental.com)

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

	X	X	BTEX + <del>MTBE</del> + <del>TMB's</del> (8021)
			BTEX + MTBE + TPH (Gas only)
	X	X	TPH 8015B (GRO / DRO / <del>MTBE</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)
	X	X	CALCEIDE
			Air Bubbles (Y or N)

Remarks:	Bill Blair
----------	------------

BP Contact: Jeff Peace

Date: 6/14	Time: 1424	Relinquished by: Jeff Blaggy
Date:	Time:	Relinquished by:

22	14	1725	Christine Walters
----	----	------	-------------------

Received by:	Date	Time
<i>M. M. H. H. H.</i>	<i>4/22/14</i>	<i>1424</i>
Received by:	Date	Time

Celan Dan 04/23/14 10:02

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 1404B17

Date Reported: 5/6/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D1**Lab ID:** 1404B17-001**Matrix:** SOIL**Client Sample ID:** NW Gate 3-pt @ 4'**Collection Date:** 4/22/2014 10:15:00 AM**Received Date:** 4/26/2014 11:00:00 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	4/29/2014 11:54:39 PM	12899
Surr: DNOP	103	57.9-140		%REC	1	4/29/2014 11:54:39 PM	12899
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/30/2014 11:57:23 PM	12911
Surr: BFB	85.9	74.5-129		%REC	1	4/30/2014 11:57:23 PM	12911
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/30/2014 11:57:23 PM	12911
Toluene	ND	0.047		mg/Kg	1	4/30/2014 11:57:23 PM	12911
Ethylbenzene	ND	0.047		mg/Kg	1	4/30/2014 11:57:23 PM	12911
Xylenes, Total	ND	0.094		mg/Kg	1	4/30/2014 11:57:23 PM	12911
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/30/2014 11:57:23 PM	12911
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/2/2014 11:30:09 AM	12983

**Sample ID: Gate**

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



## Analytical Report

Lab Order 1404B17

Date Reported: 5/6/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: NW Corner 3-pt @ 4'

Project: Lobato GC D1

Collection Date: 4/22/2014 10:40:00 AM

Lab ID: 1404B17-002

Matrix: SOIL

Received Date: 4/26/2014 11:00:00 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	9.9		mg/Kg	1	4/30/2014 1:26:30 AM	12899
Surr: DNOP	96.3	57.9-140		%REC	1	4/30/2014 1:26:30 AM	12899
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2014 12:25:56 AM	12911
Surr: BFB	85.1	74.5-129		%REC	1	5/1/2014 12:25:56 AM	12911
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	5/1/2014 12:25:56 AM	12911
Toluene	ND	0.048		mg/Kg	1	5/1/2014 12:25:56 AM	12911
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2014 12:25:56 AM	12911
Xylenes, Total	ND	0.095		mg/Kg	1	5/1/2014 12:25:56 AM	12911
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	5/1/2014 12:25:56 AM	12911
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/2/2014 12:07:23 PM	12983

Sample ID: 4

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 **1404B17**Date Reported: **5/6/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** Pipeline Riser 5-pt @ 4'**Project:** Lobato GC D1**Collection Date:** 4/23/2014 2:50:00 PM**Lab ID:** 1404B17-003**Matrix:** SOIL**Received Date:** 4/26/2014 11:00:00 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	9.9		mg/Kg	1	4/30/2014 1:57:40 AM	12899
Surr: DNOP	92.4	57.9-140		%REC	1	4/30/2014 1:57:40 AM	12899
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/1/2014 12:54:28 AM	12911
Surr: BFB	85.7	74.5-129		%REC	1	5/1/2014 12:54:28 AM	12911
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	5/1/2014 12:54:28 AM	12911
Toluene	ND	0.048		mg/Kg	1	5/1/2014 12:54:28 AM	12911
Ethylbenzene	ND	0.048		mg/Kg	1	5/1/2014 12:54:28 AM	12911
Xylenes, Total	ND	0.096		mg/Kg	1	5/1/2014 12:54:28 AM	12911
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	5/1/2014 12:54:28 AM	12911
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/2/2014 12:19:48 PM	12983

**Sample ID: 5**

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 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#: 1404B17

06-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12983	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID: 12983			RunNo: 18386					
Prep Date:	5/2/2014	Analysis Date: 5/2/2014			SeqNo: 530932		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12983	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID: 12983			RunNo: 18386					
Prep Date:	5/2/2014	Analysis Date: 5/2/2014			SeqNo: 530933		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.9	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.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B17

06-May-14

Client: Blagg Engineering

Project: Lobato GC DI

Sample ID	1404B17-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	NW Gate 3-pt @ 4'	Batch ID:	12899	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	528468	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	49.95	0	101	47.4	148			
Surr: DNOP	4.9		4.995		99.0	57.9	140			

Sample ID	1404B17-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	NW Gate 3-pt @ 4'	Batch ID:	12899	RunNo:	18255					
Prep Date:	4/28/2014	Analysis Date:	4/30/2014	SeqNo:	528469	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	49.90	0	101	47.4	148	0.296	22.7	
Surr: DNOP	4.8		4.990		96.4	57.9	140	0	0	

Sample ID	MB-12899	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 12899			RunNo: 18255					
Prep Date:	4/28/2014	Analysis Date: 4/29/2014			SeqNo: 528690		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		90.5	57.9	140			

Sample ID	LCS-12899	SampType: LCS			TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID: 12899			RunNo: 18255					
Prep Date:	4/28/2014	Analysis Date: 4/29/2014			SeqNo: 528691		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.6	60.8	145			
Surr: DNOP	4.3		5.000		86.9	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 greater than 2.  
RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B17

06-May-14

Client: Blagg Engineering

Project: Lobato GC D1

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.  
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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B17

06-May-14

Client: Blagg Engineering

Project: Lobato GC D1

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



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: 1404B17

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 7:58:10 AM

*Lindsay Mangin*

Reviewed By:

IO

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$

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:

(<2 or >12 unless noted)

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 ☐

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			

6



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: SW Corner Post 3-pt@6'  
 Project: Lobato GC D1 Collection Date: 4/28/2014 9:30:00 AM  
 Lab ID: 1405106-001 Matrix: SOIL Received Date: 5/3/2014 10:20:00 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	5/6/2014 3:16:13 PM	12995
Surr: DNOP	98.3	57.9-140		%REC	1	5/6/2014 3:16:13 PM	12995
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/7/2014 5:27:17 PM	12999
Surr: BFB	86.7	74.5-129		%REC	1	5/7/2014 5:27:17 PM	12999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	5/7/2014 5:27:17 PM	12999
Toluene	ND	0.046		mg/Kg	1	5/7/2014 5:27:17 PM	12999
Ethylbenzene	ND	0.046		mg/Kg	1	5/7/2014 5:27:17 PM	12999
Xylenes, Total	ND	0.093		mg/Kg	1	5/7/2014 5:27:17 PM	12999
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/7/2014 5:27:17 PM	12999
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/7/2014 1:15:19 PM	13053

Sample ID: 6

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 1405106

Date Reported: 5/9/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: E Wall AD 3-pt@4'

Project: Lobato GC D1

Collection Date: 4/28/2014 4:05:00 PM

Lab ID: 1405106-002

Matrix: SOIL

Received Date: 5/3/2014 10:20:00 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	5/6/2014 3:47:28 PM	12995
Surr: DNOP	105	57.9-140		%REC	1	5/6/2014 3:47:28 PM	12995
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/7/2014 5:55:57 PM	12999
Surr: BFB	86.5	74.5-129		%REC	1	5/7/2014 5:55:57 PM	12999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	5/7/2014 5:55:57 PM	12999
Toluene	ND	0.047		mg/Kg	1	5/7/2014 5:55:57 PM	12999
Ethylbenzene	ND	0.047		mg/Kg	1	5/7/2014 5:55:57 PM	12999
Xylenes, Total	ND	0.095		mg/Kg	1	5/7/2014 5:55:57 PM	12999
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/7/2014 5:55:57 PM	12999
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/7/2014 1:27:43 PM	13053

Sample ID: AD (East Side)

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Analytical Report**Lab Order **1405106**Date Reported: **5/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D1**Lab ID:** 1405106-003**Matrix:** SOIL**Client Sample ID:** E Wall AE 3-pt@4'**Collection Date:** 5/1/2014 8:20:00 AM**Received Date:** 5/3/2014 10:20:00 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)	23	10		mg/Kg	1	5/6/2014 4:18:28 PM	12995
Surr: DNOP	99.7	57.9-140		%REC	1	5/6/2014 4:18:28 PM	12995
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/7/2014 10:13:09 PM	12999
Surr: BFB	86.8	74.5-129		%REC	1	5/7/2014 10:13:09 PM	12999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	5/7/2014 10:13:09 PM	12999
Toluene	ND	0.047		mg/Kg	1	5/7/2014 10:13:09 PM	12999
Ethylbenzene	ND	0.047		mg/Kg	1	5/7/2014 10:13:09 PM	12999
Xylenes, Total	ND	0.094		mg/Kg	1	5/7/2014 10:13:09 PM	12999
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/7/2014 10:13:09 PM	12999
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/7/2014 2:29:48 PM	13053

**Sample ID: AE (East Side)**

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 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#: 1405106

09-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13053	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	13053	RunNo:	18482					
Prep Date:	5/7/2014	Analysis Date:	5/7/2014	SeqNo:	533533	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-13053		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 13053		RunNo: 18482					
Prep Date:	5/7/2014		Analysis Date: 5/7/2014		SeqNo: 533534		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	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.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405106

09-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12995	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12995	RunNo:	18374					
Prep Date:	5/5/2014	Analysis Date:	5/5/2014	SeqNo:	530743	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	8.2		10.00		81.9	57.9	140			

Sample ID	LCS-12995	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12995	RunNo:	18374					
Prep Date:	5/5/2014	Analysis Date:	5/5/2014	SeqNo:	530744	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.0	60.8	145			
Surr: DNOP	3.9		5.000		78.0	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 greater than 2.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405106

09-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12999 MK		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R18443		RunNo: 18443					
Prep Date:			Analysis Date: 5/6/2014		SeqNo: 532561		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		88.4	74.5	129			

Sample ID	LCS-12999 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R18443		RunNo: 18443					
Prep Date:			Analysis Date: 5/6/2014		SeqNo: 532562		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.5	74.5	129			

Sample ID	MB-12999		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 12999		RunNo: 18443					
Prep Date:	5/5/2014		Analysis Date: 5/6/2014		SeqNo: 532566		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	74.5	129			

Sample ID	LCS-12999		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 12999		RunNo: 18443					
Prep Date:	5/5/2014		Analysis Date: 5/6/2014		SeqNo: 532567		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.0	71.7	134			
Surr: BFB	990		1000		98.5	74.5	129			

### 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1405106

09-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-12999		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	12999		RunNo:	18443			
Prep Date:	5/5/2014		Analysis Date:	5/6/2014		SeqNo:	532595		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		105	80	120			

Sample ID	LCS-12999		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	12999		RunNo:	18443			
Prep Date:	5/5/2014		Analysis Date:	5/6/2014		SeqNo:	532596		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	114	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	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



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: 1405106

RcptNo: 1

Received by/date:

AT

05/03/14

Logged By: Lindsay Mangin

5/3/2014 10:20:00 AM

*Lindsay Mangin*

Completed By: Lindsay Mangin

5/5/2014 7:29:27 AM

*Lindsay Mangin*

Reviewed By:

mg

05/05/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Client: <b>Blagg Engineering, Inc.</b>	<input checked="" type="checkbox"/> <b>Standard</b> <input type="checkbox"/> <b>Rush</b>
<b>BP America</b>	<b>Project Name:</b>
<b>Mailing Address:</b> <b>P.O. Box 87</b>	<b>Lobato GC D1</b>
<b>Bloomfield, NM 87413</b>	<b>Project #:</b>
<b>Phone #:</b> <b>(505)320-1183</b>	<b>Project Manager:</b>
<b>email or Fax#:</b>	<b>Jeff Blagg</b>
<b>QA/QC Package:</b>	
<input checked="" type="checkbox"/> <b>Standard</b> <input type="checkbox"/> <b>Level 4 (Full Validation)</b>	
<input type="checkbox"/> <b>Other</b> _____	<b>Sampler:</b> <b>Jeff Blagg</b>
<input type="checkbox"/> <b>EDD (Type)</b> _____	<b>On Ice:</b> <input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>
	<b>Sample Temperature:</b> <b>10</b>

Date: 5/2/2014	Time: 815	Relinquished by: Jill Buegy	Received by: Christa Wallen	Date 5/2/14	Time 815
Date: 5/2/14	Time: 1644	Relinquished by: Christa Wallen	Received by: [Signature]	Date 05/13/14	Time 1620

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 1405974

Date Reported: 5/27/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall AA @ 6'

Project: Lobato GC D1

Collection Date: 5/15/2014 8:40:00 AM

Lab ID: 1405974-001

Matrix: SOIL

Received Date: 5/22/2014 10:00:00 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	5/23/2014 12:50:43 PM	13321
Surr: DNOP	118	57.9-140		%REC	1	5/23/2014 12:50:43 PM	13321
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/23/2014 4:25:58 PM	13319
Surr: BFB	82.2	80-120		%REC	1	5/23/2014 4:25:58 PM	13319
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	5/23/2014 4:25:58 PM	13319
Toluene	ND	0.048		mg/Kg	1	5/23/2014 4:25:58 PM	13319
Ethylbenzene	ND	0.048		mg/Kg	1	5/23/2014 4:25:58 PM	13319
Xylenes, Total	ND	0.096		mg/Kg	1	5/23/2014 4:25:58 PM	13319
Surr: 4-Bromofluorobenzene	96.6	80-120		%REC	1	5/23/2014 4:25:58 PM	13319
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/23/2014 3:28:27 PM	13335

Sample ID: AA (West Side)

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

## Analytical Report

Lab Order 1405974

Date Reported: 5/27/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall AB @ 6'

Project: Lobato GC D1

Collection Date: 5/15/2014 1:40:00 PM

Lab ID: 1405974-002

Matrix: SOIL

Received Date: 5/22/2014 10:00:00 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	9.9		mg/Kg	1	5/23/2014 4:26:08 PM	13321
Surr: DNOP	106	57.9-140		%REC	1	5/23/2014 4:26:08 PM	13321
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/23/2014 5:51:49 PM	13319
Surr: BFB	85.0	80-120		%REC	1	5/23/2014 5:51:49 PM	13319
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	5/23/2014 5:51:49 PM	13319
Toluene	ND	0.047		mg/Kg	1	5/23/2014 5:51:49 PM	13319
Ethylbenzene	ND	0.047		mg/Kg	1	5/23/2014 5:51:49 PM	13319
Xylenes, Total	ND	0.093		mg/Kg	1	5/23/2014 5:51:49 PM	13319
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/23/2014 5:51:49 PM	13319
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/23/2014 4:42:54 PM	13335

Sample ID: AB (West Side)

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 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: West Wall AC @ 6'  
 Project: Lobato GC D1 Collection Date: 5/16/2014 10:05:00 AM  
 Lab ID: 1405974-003 Matrix: SOIL Received Date: 5/22/2014 10:00:00 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	5/23/2014 4:56:17 PM	13321
Surr: DNOP	95.4	57.9-140		%REC	1	5/23/2014 4:56:17 PM	13321
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/23/2014 6:20:26 PM	13319
Surr: BFB	84.7	80-120		%REC	1	5/23/2014 6:20:26 PM	13319
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	5/23/2014 6:20:26 PM	13319
Toluene	ND	0.047		mg/Kg	1	5/23/2014 6:20:26 PM	13319
Ethylbenzene	ND	0.047		mg/Kg	1	5/23/2014 6:20:26 PM	13319
Xylenes, Total	ND	0.095		mg/Kg	1	5/23/2014 6:20:26 PM	13319
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	5/23/2014 6:20:26 PM	13319
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/23/2014 4:18:05 PM	13335

Sample ID: AC (West Side)

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#: 1405974

27-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13335	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	13335	RunNo:	18847					
Prep Date:	5/23/2014	Analysis Date:	5/23/2014	SeqNo:	544228	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-13335	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	13335	RunNo:	18847					
Prep Date:	5/23/2014	Analysis Date:	5/23/2014	SeqNo:	544229	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	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.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405974

27-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13321	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13321	RunNo:	18820					
Prep Date:	5/22/2014	Analysis Date:	5/23/2014	SeqNo:	543460	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	9.5		10.00		95.1	57.9	140			

Sample ID	LCS-13321	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13321	RunNo:	18820					
Prep Date:	5/22/2014	Analysis Date:	5/23/2014	SeqNo:	543509	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.6	60.8	145			
Surr: DNOP	4.7		5.000		94.3	57.9	140			

Sample ID	1405974-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	West Wall AA @ 6'	Batch ID:	13321	RunNo:	18820					
Prep Date:	5/22/2014	Analysis Date:	5/23/2014	SeqNo:	543726	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.05	0	80.5	40.1	152			
Surr: DNOP	4.5		5.005		90.4	57.9	140			

Sample ID	1405974-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	West Wall AA @ 6'	Batch ID:	13321	RunNo:	18820					
Prep Date:	5/22/2014	Analysis Date:	5/23/2014	SeqNo:	544110	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.9	49.31	0	107	40.1	152	26.8	32.1	
Surr: DNOP	5.0		4.931		102	57.9	140	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.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405974

27-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13319	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	13319		RunNo:	18829				
Prep Date:	5/22/2014	Analysis Date:	5/23/2014		SeqNo:	543975	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	810		1000		81.3	80	120			

Sample ID	LCS-13319		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 13319		RunNo: 18829					
Prep Date:	5/22/2014		Analysis Date: 5/23/2014		SeqNo: 543976		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.0	71.7	134			
Surr: BFB	890		1000		88.7	80	120			

Sample ID	1405974-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	West Wall AA @ 6'		Batch ID: 13319		RunNo: 18829					
Prep Date:	5/22/2014		Analysis Date: 5/23/2014		SeqNo: 543980		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.74	0	93.1	69.5	145			
Surr: BFB	850		949.7		89.1	80	120			

Sample ID	1405974-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	West Wall AA @ 6'		Batch ID: 13319		RunNo: 18829					
Prep Date:	5/22/2014		Analysis Date: 5/23/2014		SeqNo: 543981		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.76	0	89.5	69.5	145	3.80	20	
Surr: BFB	860		950.6		90.5	80	120	0	0	

Sample ID	MB-13327		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 13327		RunNo: 18829					
Prep Date:	5/22/2014		Analysis Date: 5/23/2014		SeqNo: 543996		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		84.5	80	120			

Sample ID	LCS-13327		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 13327		RunNo: 18829					
Prep Date:	5/22/2014		Analysis Date: 5/23/2014		SeqNo: 543997		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.3	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405974

27-May-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13319		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	13319		RunNo:	18829			
Prep Date:	5/22/2014		Analysis Date:	5/23/2014		SeqNo:	544018		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	0.95		1.000		94.8	80	120			

Sample ID	LCS-13319		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	13319		RunNo:	18829			
Prep Date:	5/22/2014		Analysis Date:	5/23/2014		SeqNo:	544019		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	109	80	120			
Toluene	1.0	0.050	1.000	0	99.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	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





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1405974

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/22/2014 10:00:00 AM

Completed By: Lindsay Mangin

5/22/2014 1:02:33 PM

Reviewed By: CS

05/22/14

*[Signature]*  
*[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? Client

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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

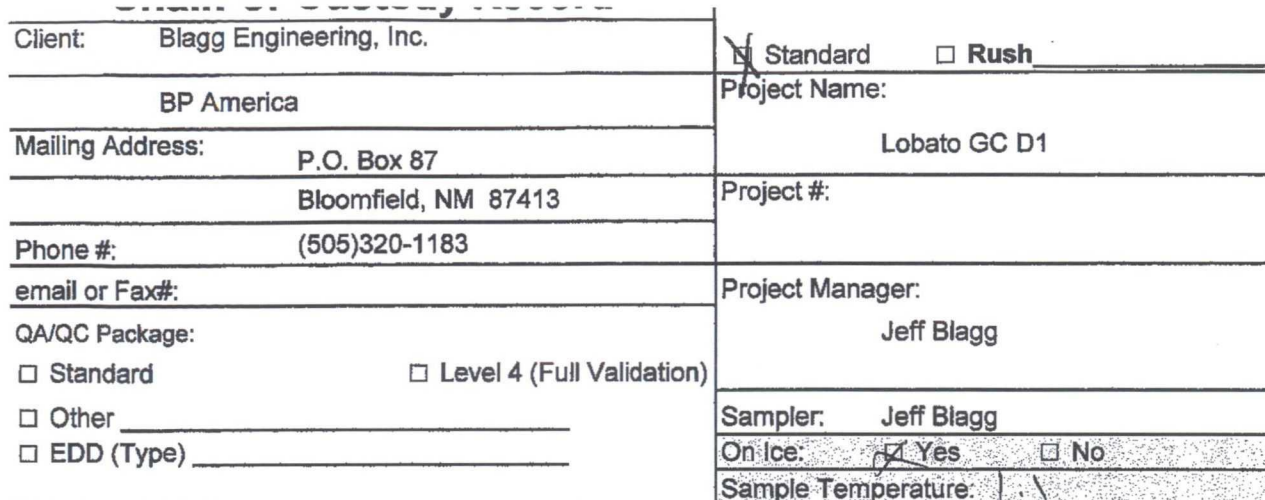
Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No.	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

[illegible]

Date: 5/21/2014	Time: 820	Relinquished by: Jeff Blagg	Received by: Christine Waelen	Date 5/21/2014	Time 820	Remarks: Bill Blagg BP Contact: Jeff Peace peace.jeffrey@bp.com Please copy results to:
Date: 5/21/14	Time: 1800	Relinquished by: Christine Waelen	Received by: [Signature]	Date 05/22/14	Time 1000	

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 1405B54

Date Reported: 6/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall AD @ 4'

Project: Lobato GC D1

Collection Date: 5/23/2014 11:30:00 AM

Lab ID: 1405B54-001

Matrix: SOIL

Received Date: 5/28/2014 10:00:00 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	5/30/2014 7:26:55 AM	13378
Surr: DNOP	98.2	57.9-140		%REC	1	5/30/2014 7:26:55 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2014 12:50:09 AM	13398
Surr: BFB	86.6	80-120		%REC	1	5/30/2014 12:50:09 AM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	5/30/2014 12:50:09 AM	13398
Toluene	ND	0.049		mg/Kg	1	5/30/2014 12:50:09 AM	13398
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2014 12:50:09 AM	13398
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2014 12:50:09 AM	13398
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/30/2014 12:50:09 AM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 12:04:19 PM	13446

Sample ID: AD (West Side)

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



## Analytical Report

Lab Order 1405B54

Date Reported: 6/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: Lobato GC D1

Lab ID: 1405B54-002

Matrix: SOIL

Client Sample ID: West Wall AE @ 4'

Collection Date: 5/23/2014 11:37:00 AM

Received Date: 5/28/2014 10:00:00 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	5/30/2014 7:57:59 AM	13378
Surr: DNOP	105	57.9-140		%REC	1	5/30/2014 7:57:59 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/30/2014 2:15:55 AM	13398
Surr: BFB	85.7	80-120		%REC	1	5/30/2014 2:15:55 AM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	5/30/2014 2:15:55 AM	13398
Toluene	ND	0.047		mg/Kg	1	5/30/2014 2:15:55 AM	13398
Ethylbenzene	ND	0.047		mg/Kg	1	5/30/2014 2:15:55 AM	13398
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2014 2:15:55 AM	13398
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/30/2014 2:15:55 AM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 12:41:32 PM	13446

Sample ID: AE (West Side)

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



## Analytical Report

Lab Order 1405B54

Date Reported: 6/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall AF @ 4'

Project: Lobato GC D1

Collection Date: 5/23/2014 11:45:00 AM

Lab ID: 1405B54-003

Matrix: SOIL

Received Date: 5/28/2014 10:00:00 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	5/30/2014 8:28:56 AM	13378
Surr: DNOP	106	57.9-140		%REC	1	5/30/2014 8:28:56 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2014 3:41:32 AM	13398
Surr: BFB	83.9	80-120		%REC	1	5/30/2014 3:41:32 AM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	5/30/2014 3:41:32 AM	13398
Toluene	ND	0.048		mg/Kg	1	5/30/2014 3:41:32 AM	13398
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2014 3:41:32 AM	13398
Xylenes, Total	ND	0.095		mg/Kg	1	5/30/2014 3:41:32 AM	13398
Surr: 4-Bromofluorobenzene	99.3	80-120		%REC	1	5/30/2014 3:41:32 AM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 1:31:10 PM	13446

Sample ID: AF (West Side)

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		

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: West Wall AG @ 4'  
 Project: Lobato GC D1 Collection Date: 5/23/2014 11:52:00 AM  
 Lab ID: 1405B54-004 Matrix: SOIL Received Date: 5/28/2014 10:00:00 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	9.9		mg/Kg	1	5/30/2014 8:59:57 AM	13378
Surr: DNOP	105	57.9-140		%REC	1	5/30/2014 8:59:57 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2014 4:10:06 AM	13398
Surr: BFB	85.3	80-120		%REC	1	5/30/2014 4:10:06 AM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	5/30/2014 4:10:06 AM	13398
Toluene	ND	0.048		mg/Kg	1	5/30/2014 4:10:06 AM	13398
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2014 4:10:06 AM	13398
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2014 4:10:06 AM	13398
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/30/2014 4:10:06 AM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 1:43:34 PM	13446

Sample ID: AG (West Side)

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 1405B54

Date Reported: 6/3/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D1**Lab ID:** 1405B54-005**Matrix:** SOIL**Client Sample ID:** West Wall AH @ 4'**Collection Date:** 5/23/2014 12:00:00 PM**Received Date:** 5/28/2014 10:00:00 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	9.9		mg/Kg	1	5/30/2014 9:31:24 AM	13378
Surr: DNOP	105	57.9-140		%REC	1	5/30/2014 9:31:24 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/30/2014 4:26:38 PM	13398
Surr: BFB	87.1	80-120		%REC	1	5/30/2014 4:26:38 PM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	5/30/2014 4:26:38 PM	13398
Toluene	ND	0.046		mg/Kg	1	5/30/2014 4:26:38 PM	13398
Ethylbenzene	ND	0.046		mg/Kg	1	5/30/2014 4:26:38 PM	13398
Xylenes, Total	ND	0.093		mg/Kg	1	5/30/2014 4:26:38 PM	13398
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/30/2014 4:26:38 PM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 1:55:59 PM	13446

**Sample ID: AH (West Side)**

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

## Analytical Report

Lab Order 1405B54

Date Reported: 6/3/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall AI @ 4'

Project: Lobato GC D1

Collection Date: 5/23/2014 12:08:00 PM

Lab ID: 1405B54-006

Matrix: SOIL

Received Date: 5/28/2014 10:00:00 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	9.9		mg/Kg	1	5/30/2014 10:02:53 AM	13378
Surr: DNOP	108	57.9-140		%REC	1	5/30/2014 10:02:53 AM	13378
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/30/2014 4:55:09 PM	13398
Surr: BFB	86.5	80-120		%REC	1	5/30/2014 4:55:09 PM	13398
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	5/30/2014 4:55:09 PM	13398
Toluene	ND	0.050		mg/Kg	1	5/30/2014 4:55:09 PM	13398
Ethylbenzene	ND	0.050		mg/Kg	1	5/30/2014 4:55:09 PM	13398
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2014 4:55:09 PM	13398
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/30/2014 4:55:09 PM	13398
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	5/30/2014 2:08:24 PM	13446

Sample ID: AI (West Side)

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#: 1405B54

03-Jun-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13446	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	13446	RunNo:	18971					
Prep Date:	5/30/2014	Analysis Date:	5/30/2014	SeqNo:	548215	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-13446	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	13446	RunNo:	18971					
Prep Date:	5/30/2014	Analysis Date:	5/30/2014	SeqNo:	548216	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	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.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405B54

03-Jun-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13378	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13378	RunNo:	18878					
Prep Date:	5/28/2014	Analysis Date:	5/28/2014	SeqNo:	545365	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	6.8		10.00		68.2	57.9	140			

Sample ID	LCS-13378	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13378	RunNo:	18878					
Prep Date:	5/28/2014	Analysis Date:	5/28/2014	SeqNo:	545367	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.0	60.8	145			
Surr: DNOP	4.0		5.000		79.6	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 greater than 2.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405B54

03-Jun-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13398		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 13398		RunNo: 18933					
Prep Date:	5/28/2014		Analysis Date: 5/29/2014		SeqNo: 547049		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		87.8	80	120			

Sample ID	LCS-13398		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 13398		RunNo: 18933					
Prep Date:	5/28/2014		Analysis Date: 5/29/2014		SeqNo: 547050		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	71.7	134			
Surr: BFB	960		1000		95.6	80	120			

Sample ID	1405B54-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	West Wall AD @ 4'		Batch ID: 13398		RunNo: 18933					
Prep Date:	5/28/2014		Analysis Date: 5/30/2014		SeqNo: 547052		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.53	0	107	69.5	145			
Surr: BFB	960		981.4		97.5	80	120			

Sample ID	1405B54-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	West Wall AD @ 4'		Batch ID: 13398		RunNo: 18933					
Prep Date:	5/28/2014		Analysis Date: 5/30/2014		SeqNo: 547053		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.51	0	106	69.5	145	1.23	20	
Surr: BFB	940		980.4		95.8	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.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1405B54

03-Jun-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	<b>MB-13398</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>13398</b>		RunNo:	<b>18933</b>			
Prep Date:	<b>5/28/2014</b>		Analysis Date:	<b>5/29/2014</b>		SeqNo:	<b>547078</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	1.1		1.000		106	80	120			

Sample ID	<b>LCS-13398</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>13398</b>		RunNo:	<b>18933</b>			
Prep Date:	<b>5/28/2014</b>		Analysis Date:	<b>5/29/2014</b>		SeqNo:	<b>547079</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	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID	<b>1405B54-002AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>West Wall AE @ 4'</b>		Batch ID:	<b>13398</b>		RunNo:	<b>18933</b>			
Prep Date:	<b>5/28/2014</b>		Analysis Date:	<b>5/30/2014</b>		SeqNo:	<b>547082</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.047	0.9443	0	115	67.4	135			
Toluene	1.0	0.047	0.9443	0.007716	105	72.6	135			
Ethylbenzene	1.0	0.047	0.9443	0	107	69.4	143			
Xylenes, Total	2.9	0.094	2.833	0.01150	104	70.8	144			
Surr: 4-Bromofluorobenzene	1.0		0.9443		109	80	120			

Sample ID	<b>1405B54-002AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>West Wall AE @ 4'</b>		Batch ID:	<b>13398</b>		RunNo:	<b>18933</b>			
Prep Date:	<b>5/28/2014</b>		Analysis Date:	<b>5/30/2014</b>		SeqNo:	<b>547083</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.047	0.9461	0	120	67.4	135	4.37	20	
Toluene	1.0	0.047	0.9461	0.007716	110	72.6	135	4.00	20	
Ethylbenzene	1.1	0.047	0.9461	0	111	69.4	143	4.05	20	
Xylenes, Total	3.0	0.095	2.838	0.01150	106	70.8	144	2.57	20	
Surr: 4-Bromofluorobenzene	1.0		0.9461		108	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.  
RL Reporting Detection Limit





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: BLAGG

Work Order Number: 1405B54

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/28/2014 10:00:00 AM

Completed By: Lindsay Mangin

5/28/2014 10:48:15 AM

Reviewed By:

CS

05/28/14

*Lindsay Mangin*  
*Lindsay Mangin*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



**Analytical Report**

Lab Order 1406956

Date Reported: 6/24/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D # 1**Lab ID:** 1406956-001**Client Sample ID:** 3-pt @ 3.5' (225', S13W)**Collection Date:** 6/19/2014 1:00:00 PM**Matrix:** MEOH (SOIL) **Received Date:** 6/20/2014 8:00:00 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	9.9		mg/Kg	1	6/20/2014 10:41:10 AM	13803
Surr: DNOP	104	57.9-140		%REC	1	6/20/2014 10:41:10 AM	13803
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/20/2014 10:25:09 AM	R19405
Surr: BFB	98.7	80-120		%REC	1	6/20/2014 10:25:09 AM	R19405
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.033		mg/Kg	1	6/20/2014 10:25:09 AM	R19405
Toluene	ND	0.033		mg/Kg	1	6/20/2014 10:25:09 AM	R19405
Ethylbenzene	ND	0.033		mg/Kg	1	6/20/2014 10:25:09 AM	R19405
Xylenes, Total	ND	0.067		mg/Kg	1	6/20/2014 10:25:09 AM	R19405
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	6/20/2014 10:25:09 AM	R19405
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	6/20/2014 12:00:36 PM	13810

**Sample ID: 7**

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 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#: 1406956

24-Jun-14

Client: Blagg Engineering

Project: Lobato GC D # 1

Sample ID	MB-13810	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	13810	RunNo:	19436					
Prep Date:	6/20/2014	Analysis Date:	6/20/2014	SeqNo:	562237	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-13810	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	13810	RunNo:	19436					
Prep Date:	6/20/2014	Analysis Date:	6/20/2014	SeqNo:	562238	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	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.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406956

24-Jun-14

Client: Blagg Engineering

Project: Lobato GC D # 1

Sample ID	MB-13803	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13803	RunNo:	19402					
Prep Date:	6/20/2014	Analysis Date:	6/20/2014	SeqNo:	561328	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	8.3		10.00		83.4	57.9	140			

Sample ID	LCS-13803	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13803	RunNo:	19402					
Prep Date:	6/20/2014	Analysis Date:	6/20/2014	SeqNo:	561594	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	60.8	145			
Surr: DNOP	3.4		5.000		68.9	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 greater than 2.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406956

24-Jun-14

Client: Blagg Engineering

Project: Lobato GC D # 1

Sample ID	MB-13793 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R19405	RunNo:	19405					
Prep Date:		Analysis Date:	6/20/2014	SeqNo:	561885	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	960		1000		96.1	80	120			

Sample ID	LCS-13793 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R19405	RunNo:	19405					
Prep Date:		Analysis Date:	6/20/2014	SeqNo:	561886	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.1	71.7	134			
Surr: BFB	950		1000		95.2	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406956

24-Jun-14

Client: Blagg Engineering

Project: Lobato GC D # 1

Sample ID	<b>MB-13793 MK</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>R19405</b>		RunNo:	<b>19405</b>			
Prep Date:			Analysis Date:	<b>6/20/2014</b>		SeqNo:	<b>561907</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	1.1		1.000		114	80	120			

Sample ID	<b>LCS-13793 MK</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>R19405</b>		RunNo:	<b>19405</b>			
Prep Date:			Analysis Date:	<b>6/20/2014</b>		SeqNo:	<b>561908</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	95.6	80	120			
Toluene	0.93	0.050	1.000	0	92.8	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	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: **1406956**

RcptNo: **1**

Received by/date: *AT* *06/20/14*

Logged By: **Lindsay Mangin**

6/20/2014 8:00:00 AM

Completed By: **Lindsay Mangin**

6/20/2014 8:24:11 AM

Reviewed By: *mg* *06/20/14*

## 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 ☐ # 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?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

## Special Handling (if applicable)

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

Person Notified:

Date:

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	1.8	Good	Yes			



# Chain-of-Custody Record

Client: **BLAGG ENGR. / 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) \_\_\_\_\_

Turnaround Time:  
☒ Standard ☒ Rush Same Day

Project Name: **LOBATO GC D # 1**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 18



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + THMs (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / <del>ANAL</del> )	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	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 (soil - 300.0 / water - 300.1)	Grab sample	3 pt. composite sample
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No
6/19/14	1300	SOIL	3-pt. @ 3.5' (225', S13W)	4 oz. - 1	Cool	406956 -001

Date: 6/19/14	Time: 1550	Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date: 6/19/14	Time: 1550
Date: 6/19/14	Time: 1810	Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date: 6/24/14	Time: 0800

Remarks:

Send invoice to : **Blagg Engineering, Inc.**  
**P.O. Box 87**  
**Bloomfield, NM 87413**

**Analytical Report**Lab Order **1406B29**

Date Reported: 7/1/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Project:** Lobato GC D #1**Lab ID:** 1406B29-001**Matrix:** SOIL**Client Sample ID:** 3PC-SW @ 3'-3.5' - (61',S16W)**Collection Date:** 6/24/2014 12:25:00 PM**Received Date:** 6/25/2014 8:10:00 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	6/26/2014 6:37:33 PM	13880
Surr: DNOP	84.7	57.9-140		%REC	1	6/26/2014 6:37:33 PM	13880
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/26/2014 2:45:55 PM	13887
Surr: BFB	96.2	80-120		%REC	1	6/26/2014 2:45:55 PM	13887
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	6/26/2014 2:45:55 PM	13887
Toluene	ND	0.049		mg/Kg	1	6/26/2014 2:45:55 PM	13887
Ethylbenzene	ND	0.049		mg/Kg	1	6/26/2014 2:45:55 PM	13887
Xylenes, Total	ND	0.098		mg/Kg	1	6/26/2014 2:45:55 PM	13887
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	6/26/2014 2:45:55 PM	13887
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	6/27/2014 11:19:31 AM	13936

**Sample ID: 8**

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Analytical Report**

Lab Order 1406B29

Date Reported: 7/1/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** 3PC-SW @ 3' - (222',S4W)**Project:** Lobato GC D #1**Collection Date:** 6/24/2014 12:35:00 PM**Lab ID:** 1406B29-002**Matrix:** SOIL**Received Date:** 6/25/2014 8:10:00 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)	44	9.9		mg/Kg	1	6/26/2014 7:08:01 PM	13880
Surr: DNOP	97.5	57.9-140		%REC	1	6/26/2014 7:08:01 PM	13880
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/26/2014 4:11:58 PM	13887
Surr: BFB	97.7	80-120		%REC	1	6/26/2014 4:11:58 PM	13887
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	6/26/2014 4:11:58 PM	13887
Toluene	ND	0.048		mg/Kg	1	6/26/2014 4:11:58 PM	13887
Ethylbenzene	ND	0.048		mg/Kg	1	6/26/2014 4:11:58 PM	13887
Xylenes, Total	ND	0.096		mg/Kg	1	6/26/2014 4:11:58 PM	13887
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	6/26/2014 4:11:58 PM	13887
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	6/27/2014 11:56:45 AM	13936

**Sample ID: 9**

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 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#: 1406B29

01-Jul-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	MB-13936	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	13936	RunNo:	19582					
Prep Date:	6/27/2014	Analysis Date:	6/27/2014	SeqNo:	567620	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-13936	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	13936	RunNo:	19582					
Prep Date:	6/27/2014	Analysis Date:	6/27/2014	SeqNo:	567621	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	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.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406B29

01-Jul-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	MB-13880	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13880	RunNo:	19466					
Prep Date:	6/25/2014	Analysis Date:	6/25/2014	SeqNo:	563896	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	8.4		10.00		84.2	57.9	140			

Sample ID	LCS-13880	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13880	RunNo:	19466					
Prep Date:	6/25/2014	Analysis Date:	6/25/2014	SeqNo:	563897	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	91.5	68.6	130			
Surr: DNOP	4.1		5.000		82.5	57.9	140			

Sample ID	MB-13911	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13911	RunNo:	19522					
Prep Date:	6/26/2014	Analysis Date:	6/26/2014	SeqNo:	564983	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.1		10.00		70.6	57.9	140			

Sample ID	LCS-13911	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13911	RunNo:	19522					
Prep Date:	6/26/2014	Analysis Date:	6/26/2014	SeqNo:	564984	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.4		5.000		67.1	57.9	140			

Sample ID	MB-13913	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13913	RunNo:	19522					
Prep Date:	6/26/2014	Analysis Date:	6/26/2014	SeqNo:	565609	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.6		10.00		66.4	57.9	140			

Sample ID	LCS-13913	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13913	RunNo:	19522					
Prep Date:	6/26/2014	Analysis Date:	6/26/2014	SeqNo:	565610	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.1		5.000		61.7	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 greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406B29

01-Jul-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	MB-13887	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	13887	RunNo:	19523					
Prep Date:	6/25/2014	Analysis Date:	6/26/2014	SeqNo:	565490	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	960		1000		95.6	80	120			

Sample ID	LCS-13887	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	13887	RunNo:	19523					
Prep Date:	6/25/2014	Analysis Date:	6/26/2014	SeqNo:	565492	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	71.7	134			
Surr: BFB	1100		1000		105	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406B29

01-Jul-14

Client: Blagg Engineering

Project: Lobato GC D #1

Sample ID	<b>MB-13887</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>13887</b>		RunNo:	<b>19523</b>			
Prep Date:	<b>6/25/2014</b>		Analysis Date:	<b>6/26/2014</b>		SeqNo:	<b>565525</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	1.1		1.000		108	80	120			

Sample ID	<b>LCS-13887</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>13887</b>		RunNo:	<b>19523</b>			
Prep Date:	<b>6/25/2014</b>		Analysis Date:	<b>6/26/2014</b>		SeqNo:	<b>565526</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>1406B29-001AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>3PC-SW @ 3'-3.5' - (</b>		Batch ID:	<b>13887</b>		RunNo:	<b>19523</b>			
Prep Date:	<b>6/25/2014</b>		Analysis Date:	<b>6/26/2014</b>		SeqNo:	<b>565528</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9862	0	107	77.4	142			
Toluene	1.1	0.049	0.9862	0.007175	107	77	132			
Ethylbenzene	1.1	0.049	0.9862	0	110	77.6	134			
Xylenes, Total	3.3	0.099	2.959	0.01190	110	77.4	132			
Surr: 4-Bromofluorobenzene	1.1		0.9862		107	80	120			

Sample ID	<b>1406B29-001AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>3PC-SW @ 3'-3.5' - (</b>		Batch ID:	<b>13887</b>		RunNo:	<b>19523</b>			
Prep Date:	<b>6/25/2014</b>		Analysis Date:	<b>6/26/2014</b>		SeqNo:	<b>565529</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9872	0	109	77.4	142	2.78	20	
Toluene	1.1	0.049	0.9872	0.007175	110	77	132	2.17	20	
Ethylbenzene	1.1	0.049	0.9872	0	113	77.6	134	2.39	20	
Xylenes, Total	3.3	0.099	2.962	0.01190	112	77.4	132	2.17	20	
Surr: 4-Bromofluorobenzene	1.1		0.9872		107	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.
- RL Reporting Detection Limit



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: 1406B29

RcptNo: 1

Received by/date: LM 06/25/14

Logged By: Celina Sessa 6/25/2014 8:10:00 AM

Completed By: Celina Sessa 6/25/2014 9:19:59 AM

Reviewed By: [Signature] 06/25/14

*Celina Sessa*

*Celina Sessa*

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			



ש.ח.ח. מו"ט טו"ז

☒ Standard      ☐ Rush

Project Name: **LOBATO GC D # 1**

Project #:

**Project Manager:**

NELSON VELEZ


**Sampler: NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 7.6

☐ EDD (Type)[illegible]

Date: 6/24/14	Time: 1556
------------------	---------------

Relinquished by: 

Received by:	Date	Time
Christine Wase	6/21/11	155


Remarks:

**Send invoice to :**

**Blagg Engineering, Inc.**  
**P.O. Box 87**  
**Bloomfield, NM 87413**

Date:	Time:
6/24/14	1930

Relinquished by: Christa Waeber

Received by:  Date 06/25/12 Time 0810

If necessary, samples submitted to Hail 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 **1406D41**

Date Reported: 7/7/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** E. Wall AF 3-pt Comp.**Project:** Lobato GC D1**Collection Date:** 6/27/2014 8:40:00 AM**Lab ID:** 1406D41-001**Matrix:** SOIL**Received Date:** 6/28/2014 6:45:00 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	6/30/2014 3:12:12 PM	13968
Surr: DNOP	68.6	57.9-140		%REC	1	6/30/2014 3:12:12 PM	13968
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2014 1:15:07 PM	13966
Surr: BFB	125	80-120	S	%REC	1	7/1/2014 1:15:07 PM	13966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/1/2014 1:15:07 PM	13966
Toluene	ND	0.049		mg/Kg	1	7/1/2014 1:15:07 PM	13966
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2014 1:15:07 PM	13966
Xylenes, Total	ND	0.098		mg/Kg	1	7/1/2014 1:15:07 PM	13966
Surr: 4-Bromofluorobenzene	117	80-120		%REC	1	7/1/2014 1:15:07 PM	13966
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/1/2014 11:55:13 AM	14002

**Sample ID: AF (East Side)**

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

## Analytical Report

Lab Order 1406D41

Date Reported: 7/7/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: E. Wall AG 3-pt Comp.

Project: Lobato GC D1

Collection Date: 6/27/2014 8:50:00 AM

Lab ID: 1406D41-002

Matrix: SOIL

Received Date: 6/28/2014 6:45:00 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	9.9		mg/Kg	1	6/30/2014 4:45:00 PM	13968
Surr: DNOP	75.3	57.9-140		%REC	1	6/30/2014 4:45:00 PM	13968
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2014 2:46:11 PM	13966
Surr: BFB	96.0	80-120		%REC	1	7/1/2014 2:46:11 PM	13966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	7/1/2014 2:46:11 PM	13966
Toluene	ND	0.050		mg/Kg	1	7/1/2014 2:46:11 PM	13966
Ethylbenzene	ND	0.050		mg/Kg	1	7/1/2014 2:46:11 PM	13966
Xylenes, Total	ND	0.10		mg/Kg	1	7/1/2014 2:46:11 PM	13966
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	7/1/2014 2:46:11 PM	13966
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/1/2014 12:07:38 PM	14002

Sample ID: AG (East Side)

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 greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



## Analytical Report

Lab Order 1406D41

Date Reported: 7/7/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: E. Wall AH 3-pt Comp.

Project: Lobato GC D1

Collection Date: 6/27/2014 9:00:00 AM

Lab ID: 1406D41-003

Matrix: SOIL

Received Date: 6/28/2014 6:45:00 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	9.8		mg/Kg	1	6/30/2014 5:15:50 PM	13968
Surr: DNOP	78.4	57.9-140		%REC	1	6/30/2014 5:15:50 PM	13968
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2014 4:12:02 PM	13966
Surr: BFB	97.1	80-120		%REC	1	7/1/2014 4:12:02 PM	13966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/1/2014 4:12:02 PM	13966
Toluene	ND	0.049		mg/Kg	1	7/1/2014 4:12:02 PM	13966
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2014 4:12:02 PM	13966
Xylenes, Total	ND	0.098		mg/Kg	1	7/1/2014 4:12:02 PM	13966
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	7/1/2014 4:12:02 PM	13966
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/1/2014 12:20:03 PM	14002

Sample ID: AH (East Side)

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		



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: E. Wall AI 3-pt Comp.  
 Project: Lobato GC D1 Collection Date: 6/27/2014 9:10:00 AM  
 Lab ID: 1406D41-004 Matrix: SOIL Received Date: 6/28/2014 6:45:00 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)	43	10		mg/Kg	1	6/30/2014 5:46:56 PM	13968
Surr: DNOP	79.7	57.9-140		%REC	1	6/30/2014 5:46:56 PM	13968
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/1/2014 4:40:46 PM	13966
Surr: BFB	97.1	80-120		%REC	1	7/1/2014 4:40:46 PM	13966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	7/1/2014 4:40:46 PM	13966
Toluene	ND	0.048		mg/Kg	1	7/1/2014 4:40:46 PM	13966
Ethylbenzene	ND	0.048		mg/Kg	1	7/1/2014 4:40:46 PM	13966
Xylenes, Total	ND	0.096		mg/Kg	1	7/1/2014 4:40:46 PM	13966
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	7/1/2014 4:40:46 PM	13966
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/1/2014 12:32:28 PM	14002

Sample ID: AI (East Side)

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 4 of 9
	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 1406D41

Date Reported: 7/7/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: E. Wall AJ 3-pt Comp.

Project: Lobato GC D1

Collection Date: 6/27/2014 9:20:00 AM

Lab ID: 1406D41-005

Matrix: SOIL

Received Date: 6/28/2014 6:45:00 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)	49	10		mg/Kg	1	6/30/2014 6:17:42 PM	13968
Surr: DNOP	83.6	57.9-140		%REC	1	6/30/2014 6:17:42 PM	13968
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/1/2014 5:09:26 PM	13966
Surr: BFB	98.2	80-120		%REC	1	7/1/2014 5:09:26 PM	13966
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	7/1/2014 5:09:26 PM	13966
Toluene	ND	0.048		mg/Kg	1	7/1/2014 5:09:26 PM	13966
Ethylbenzene	ND	0.048		mg/Kg	1	7/1/2014 5:09:26 PM	13966
Xylenes, Total	ND	0.096		mg/Kg	1	7/1/2014 5:09:26 PM	13966
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	7/1/2014 5:09:26 PM	13966
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/1/2014 12:44:52 PM	14002

Sample ID: AJ (East Side)

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 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#: 1406D41

07-Jul-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-14002	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID: 14002			RunNo: 19637					
Prep Date:	7/1/2014	Analysis Date: 7/1/2014			SeqNo: 569535		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-14002	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID: 14002			RunNo: 19637					
Prep Date:	7/1/2014	Analysis Date: 7/1/2014			SeqNo: 569536		Units: mg/Kg			
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 greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D41

07-Jul-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13968		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	13968		RunNo:	19585				
Prep Date:	6/30/2014		Analysis Date:	6/30/2014		SeqNo:	567719		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	7.2		10.00		72.1	57.9	140				

Sample ID	LCS-13968		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 13968		RunNo: 19585					
Prep Date:	6/30/2014		Analysis Date: 6/30/2014		SeqNo: 567720		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.6	68.6	130			
Surr: DNOP	3.4		5.000		68.8	57.9	140			

Sample ID	1406D41-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	E. Wall AF 3-pt Com		Batch ID: 13968		RunNo: 19585					
Prep Date:	6/30/2014		Analysis Date: 6/30/2014		SeqNo: 567721		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.30	0	98.2	40.1	152			
Surr: DNOP	3.6		5.030		71.4	57.9	140			

Sample ID	1406D41-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	E. Wall AF 3-pt Com		Batch ID: 13968		RunNo: 19585					
Prep Date:	6/30/2014		Analysis Date: 6/30/2014		SeqNo: 567722		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	49.95	0	111	40.1	152	11.7	32.1	
Surr: DNOP	3.9		4.995		78.8	57.9	140	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.
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D41

07-Jul-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13966	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	13966		RunNo:	19616				
Prep Date:	6/30/2014	Analysis Date:	7/1/2014		SeqNo:	568837	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	970		1000		97.4	80	120			

Sample ID	LCS-13966		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 13966		RunNo: 19616					
Prep Date:	6/30/2014		Analysis Date: 7/1/2014		SeqNo: 568838		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	71.7	134			
Surr: BFB	1100		1000		106	80	120			

Sample ID	1406D41-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	E. Wall AF 3-pt Com		Batch ID: 13966		RunNo: 19616					
Prep Date:	6/30/2014		Analysis Date: 7/1/2014		SeqNo: 568844		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.9	24.53	0	130	71.8	132			
Surr: BFB	1200		981.4		118	80	120			

Sample ID	1406D41-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	E. Wall AF 3-pt Com		Batch ID: 13966		RunNo: 19616					
Prep Date:	6/30/2014		Analysis Date: 7/1/2014		SeqNo: 568845		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.51	0	121	71.8	132	7.31	20	
Surr: BFB	1000		980.4		104	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.  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1406D41

07-Jul-14

Client: Blagg Engineering

Project: Lobato GC D1

Sample ID	MB-13966		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	13966		RunNo:	19616			
Prep Date:	6/30/2014		Analysis Date:	7/1/2014		SeqNo:	568870		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	1.1		1.000		110	80	120			

Sample ID	LCS-13966		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	13966		RunNo:	19616			
Prep Date:	6/30/2014		Analysis Date:	7/1/2014		SeqNo:	568871		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	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID	1406D41-002AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	E. Wall AG 3-pt Co		Batch ID:	13966		RunNo:	19616			
Prep Date:	6/30/2014		Analysis Date:	7/1/2014		SeqNo:	568878		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	0.9940	0	111	77.4	142			
Toluene	1.1	0.050	0.9940	0.007807	108	77	132			
Ethylbenzene	1.1	0.050	0.9940	0	110	77.6	134			
Xylenes, Total	3.3	0.099	2.982	0.01174	110	77.4	132			
Surr: 4-Bromofluorobenzene	1.1		0.9940		112	80	120			

Sample ID	1406D41-002AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	E. Wall AG 3-pt Co		Batch ID:	13966		RunNo:	19616			
Prep Date:	6/30/2014		Analysis Date:	7/1/2014		SeqNo:	568879		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	0.9970	0	117	77.4	142	5.34	20	
Toluene	1.1	0.050	0.9970	0.007807	112	77	132	3.98	20	
Ethylbenzene	1.2	0.050	0.9970	0	115	77.6	134	4.90	20	
Xylenes, Total	3.4	0.10	2.991	0.01174	114	77.4	132	3.48	20	
Surr: 4-Bromofluorobenzene	1.1		0.9970		112	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.  
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: 1406D41

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

6/28/2014 6:45:00 AM

Completed By: Lindsay Mangin

6/28/2014 9:15:26 AM

Reviewed By:

AR 06/30/14

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐ # 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?  
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No.	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.2	Good	Yes			



Client: BLACC ENGINEERING INC.  
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)  
Accreditation  
☐ NELAP ☐ Other \_\_\_\_\_  
☐ EDD (Type) \_\_\_\_\_

Project Name: LOBATO GC D1


Project #:	
------------	--

Project Manager: J. BLAGG

Sampler: J. BLAKE

Sample Temperature: 2.2

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
2/27/14	1300	JH Blagg		06/28/14	1145

Date:	Time:	Relinquished by:	Received by:	Date	Time



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

	X	X	X	X	X	BTEX + <del>MTEB</del> + TMS's (8021)
						BTEX + MTBE + TPH (Gas only)
	X	X	X	X	X	TPH 8015B (GRO / DRO / <del>MTEB</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)
	X	X	X	X	X	CHLORIDE
						Air Bubbles (Y or N)

Remarks: *BILL BLAKE*

BP contact: JEFF PEARCE