

**NM1 - \_\_\_\_\_ 10- B \_\_\_\_\_**

**MONITORING  
REPORT**

**YEAR(S):**

**\_\_\_\_\_ 2013-2014 \_\_\_\_\_**

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

RECEIVED OOD

USPS CERTIFIED  
7012 1010 0002 1168 7463 2015 MAY -4 P 3:05

April 28, 2015

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

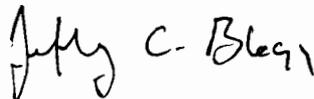
Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2014 4<sup>th</sup> Quarterly Report on Treatment Zone Monitoring

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on December 29, 2014.

The facility permit describes annual cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015D (GRO, DRO and MRO), volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B, chlorides by Method 300.0, cation/anion balance, and RCRA 8 metals. For this event samples were collected from active cell units 2g, 3g, 4e, 7e, 8g, 9a, 11a, 12b and 13c (see attached figure). No constituents were found to be in excess of landfarm permit standards.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

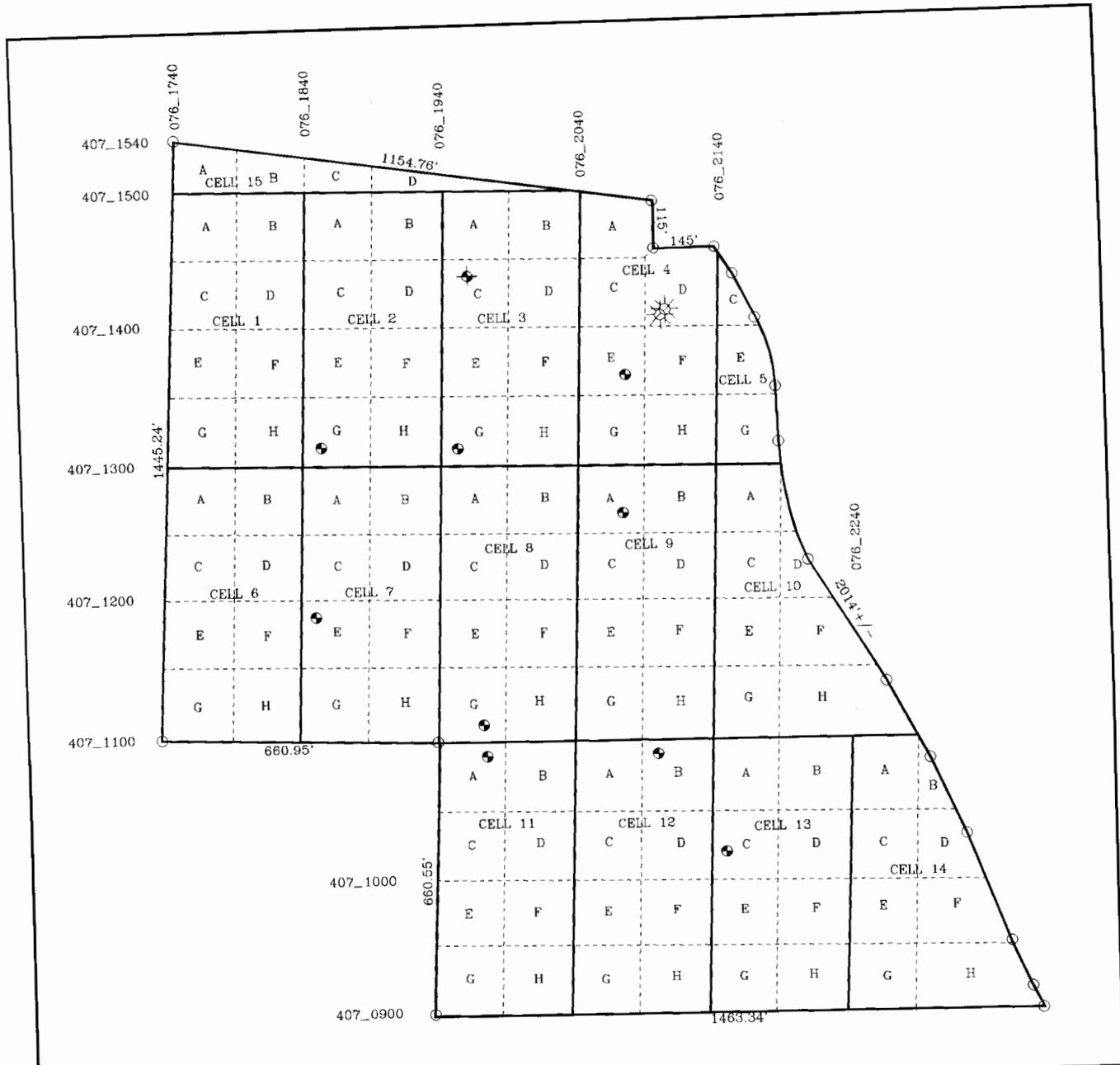
Respectfully submitted:  
**Blagg Engineering, Inc.**



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



LEGEND

- Active Gas Well
- PxA Gas Well
- Sample Point

N

0                      500                      1000 Feet

JFJ LANDFARM FACILITY			BLAGG ENGINEERING, INC.		
DATE: DEC 2014	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199		



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

January 16, 2015

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

RE: JFJ Landfarm

OrderNo.: 1412B93

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/31/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1412B93

Date Reported: 1/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 2G

Project: JFJ Landfarm

Collection Date: 12/29/2014 9:30:00 AM

Lab ID: 1412B93-001

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/2/2015 8:55:07 AM	17041
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/2/2015 8:55:07 AM	17041
Surr: DNOP	91.9	63.5-128		%REC	1	1/2/2015 8:55:07 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/2/2015 11:20:25 AM	17043
Surr: BFB	88.6	80-120		%REC	1	1/2/2015 11:20:25 AM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	1/2/2015 11:20:25 AM	17043
Toluene	ND	0.049		mg/Kg	1	1/2/2015 11:20:25 AM	17043
Ethylbenzene	ND	0.049		mg/Kg	1	1/2/2015 11:20:25 AM	17043
Xylenes, Total	ND	0.098		mg/Kg	1	1/2/2015 11:20:25 AM	17043
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	1/2/2015 11:20:25 AM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>lgp</b>
Fluoride	0.74	0.30		mg/Kg	1	1/2/2015 11:53:03 AM	17052
Chloride	ND	1.5		mg/Kg	1	1/2/2015 11:53:03 AM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 11:53:03 AM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 11:53:03 AM	17052
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	1/2/2015 11:53:03 AM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 12:30:16 PM	17052
Sulfate	2900	30		mg/Kg	20	1/2/2015 12:30:16 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 3:41:15 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.6		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Barium	17	0.10		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Cadmium	ND	0.10		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Calcium	6400	130		mg/Kg	5	1/6/2015 10:24:46 AM	17044
Chromium	1.5	0.31		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Lead	2.6	0.26		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Magnesium	860	26		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Manganese	140	0.10		mg/Kg	1	1/6/2015 10:18:54 AM	17044
Potassium	380	52		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Selenium	ND	2.6		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Silver	ND	0.26		mg/Kg	1	1/2/2015 2:13:52 PM	17044
Sodium	29	26		mg/Kg	1	1/2/2015 2:13:52 PM	17044

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.

Analytical Report

Lab Order 1412B93

Date Reported: 1/16/2015

CLIENT: Blagg Engineering

Client Sample ID: Cell 3G

Project: JFJ Landfarm

Collection Date: 12/29/2014 9:40:00 AM

Lab ID: 1412B93-002

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/2/2015 9:16:25 AM	17041
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/2/2015 9:16:25 AM	17041
Surr: DNOP	92.0	63.5-128		%REC	1	1/2/2015 9:16:25 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/2/2015 12:46:35 PM	17043
Surr: BFB	89.0	80-120		%REC	1	1/2/2015 12:46:35 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	1/2/2015 12:46:35 PM	17043
Toluene	ND	0.049		mg/Kg	1	1/2/2015 12:46:35 PM	17043
Ethylbenzene	ND	0.049		mg/Kg	1	1/2/2015 12:46:35 PM	17043
Xylenes, Total	ND	0.099		mg/Kg	1	1/2/2015 12:46:35 PM	17043
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	1/2/2015 12:46:35 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	0.65	0.30		mg/Kg	1	1/2/2015 12:42:41 PM	17052
Chloride	2.5	1.5		mg/Kg	1	1/2/2015 12:42:41 PM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 12:42:41 PM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 12:42:41 PM	17052
Nitrogen, Nitrate (As N)	0.32	0.30		mg/Kg	1	1/2/2015 12:42:41 PM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 12:55:05 PM	17052
Sulfate	1500	30		mg/Kg	20	1/2/2015 12:55:05 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 3:50:24 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.4		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Barium	12	0.096		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Cadmium	ND	0.096		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Calcium	2700	24		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Chromium	1.5	0.29		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Lead	2.2	0.24		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Magnesium	820	24		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Manganese	99	0.096		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Potassium	350	48		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Selenium	ND	2.4		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Silver	ND	0.24		mg/Kg	1	1/2/2015 2:19:41 PM	17044
Sodium	29	24		mg/Kg	1	1/2/2015 2:19:41 PM	17044

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 1412B93

Date Reported: 1/16/2015

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 4E

Project: JFJ Landfarm

Collection Date: 12/29/2014 9:50:00 AM

Lab ID: 1412B93-003

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	19	10		mg/Kg	1	1/2/2015 9:37:42 AM	17041
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/2/2015 9:37:42 AM	17041
Surr: DNOP	80.5	63.5-128		%REC	1	1/2/2015 9:37:42 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/2/2015 2:12:42 PM	17043
Surr: BFB	91.5	80-120		%REC	1	1/2/2015 2:12:42 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	1/2/2015 2:12:42 PM	17043
Toluene	ND	0.047		mg/Kg	1	1/2/2015 2:12:42 PM	17043
Ethylbenzene	ND	0.047		mg/Kg	1	1/2/2015 2:12:42 PM	17043
Xylenes, Total	ND	0.093		mg/Kg	1	1/2/2015 2:12:42 PM	17043
Surr: 4-Bromofluorobenzene	96.7	80-120		%REC	1	1/2/2015 2:12:42 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	3.4	0.30		mg/Kg	1	1/2/2015 1:32:19 PM	17052
Chloride	ND	1.5		mg/Kg	1	1/2/2015 1:32:19 PM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 1:32:19 PM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 1:32:19 PM	17052
Nitrogen, Nitrate (As N)	1.9	0.30		mg/Kg	1	1/2/2015 1:32:19 PM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 1:44:43 PM	17052
Sulfate	3500	75		mg/Kg	50	1/5/2015 6:06:29 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 3:52:15 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	3.7	2.5		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Barium	29	0.10		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Cadmium	ND	0.10		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Calcium	6700	130		mg/Kg	5	1/2/2015 2:57:24 PM	17044
Chromium	2.0	0.31		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Lead	3.5	0.25		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Magnesium	890	25		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Manganese	200	0.10		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Potassium	420	51		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Selenium	ND	2.5		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Silver	ND	0.25		mg/Kg	1	1/2/2015 2:21:23 PM	17044
Sodium	ND	25		mg/Kg	1	1/2/2015 2:21:23 PM	17044

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	Page 3 of 18
	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 1412B93

Date Reported: 1/16/2015

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 7E

Project: JFJ Landfarm

Collection Date: 12/29/2014 9:20:00 AM

Lab ID: 1412B93-004

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/2/2015 9:59:11 AM	17041
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/2/2015 9:59:11 AM	17041
Surr: DNOP	108	63.5-128		%REC	1	1/2/2015 9:59:11 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/2/2015 2:41:23 PM	17043
Surr: BFB	91.6	80-120		%REC	1	1/2/2015 2:41:23 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	1/2/2015 2:41:23 PM	17043
Toluene	ND	0.049		mg/Kg	1	1/2/2015 2:41:23 PM	17043
Ethylbenzene	ND	0.049		mg/Kg	1	1/2/2015 2:41:23 PM	17043
Xylenes, Total	ND	0.099		mg/Kg	1	1/2/2015 2:41:23 PM	17043
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	1/2/2015 2:41:23 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>lgp</b>
Fluoride	0.42	0.30		mg/Kg	1	1/2/2015 1:57:07 PM	17052
Chloride	1.8	1.5		mg/Kg	1	1/2/2015 1:57:07 PM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 1:57:07 PM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 1:57:07 PM	17052
Nitrogen, Nitrate (As N)	0.49	0.30		mg/Kg	1	1/2/2015 1:57:07 PM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 2:09:32 PM	17052
Sulfate	3900	75		mg/Kg	50	1/5/2015 6:18:54 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 3:54:06 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.4		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Barium	140	0.097		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Cadmium	ND	0.097		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Calcium	7500	120		mg/Kg	5	1/2/2015 2:59:09 PM	17044
Chromium	4.0	0.29		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Lead	2.7	0.24		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Magnesium	1900	24		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Manganese	73	0.097		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Potassium	760	49		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Selenium	ND	2.4		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Silver	ND	0.24		mg/Kg	1	1/2/2015 2:23:23 PM	17044
Sodium	31	24		mg/Kg	1	1/2/2015 2:23:23 PM	17044

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 1412B93

Date Reported: 1/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 8G

Project: JFJ Landfarm

Collection Date: 12/29/2014 9:10:00 AM

Lab ID: 1412B93-005

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	17	9.9		mg/Kg	1	1/2/2015 10:20:33 AM	17041
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/2/2015 10:20:33 AM	17041
Surr: DNOP	87.4	63.5-128		%REC	1	1/2/2015 10:20:33 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/2/2015 3:10:04 PM	17043
Surr: BFB	92.0	80-120		%REC	1	1/2/2015 3:10:04 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	1/2/2015 3:10:04 PM	17043
Toluene	ND	0.046		mg/Kg	1	1/2/2015 3:10:04 PM	17043
Ethylbenzene	ND	0.046		mg/Kg	1	1/2/2015 3:10:04 PM	17043
Xylenes, Total	ND	0.092		mg/Kg	1	1/2/2015 3:10:04 PM	17043
Surr: 4-Bromofluorobenzene	95.8	80-120		%REC	1	1/2/2015 3:10:04 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	3.6	0.30		mg/Kg	1	1/2/2015 2:21:56 PM	17052
Chloride	ND	1.5		mg/Kg	1	1/2/2015 2:21:56 PM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 2:21:56 PM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 2:21:56 PM	17052
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	1/2/2015 2:21:56 PM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 2:34:21 PM	17052
Sulfate	4600	75		mg/Kg	50	1/5/2015 6:56:08 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 3:58:56 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.6		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Barium	4.9	0.10		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Cadmium	ND	0.10		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Calcium	25000	260		mg/Kg	10	1/2/2015 3:00:55 PM	17044
Chromium	2.8	0.31		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Lead	2.6	0.26		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Magnesium	1000	26		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Manganese	91	0.10		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Potassium	950	51		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Selenium	ND	2.6		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Silver	ND	0.26		mg/Kg	1	1/2/2015 2:31:43 PM	17044
Sodium	37	26		mg/Kg	1	1/2/2015 2:31:43 PM	17044

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 1412B93

Date Reported: 1/16/2015

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 9A

Project: JFJ Landfarm

Collection Date: 12/29/2014 10:00:00 AM

Lab ID: 1412B93-006

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/2/2015 10:41:58 AM	17041
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/2/2015 10:41:58 AM	17041
Surr: DNOP	88.1	63.5-128		%REC	1	1/2/2015 10:41:58 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/2/2015 3:38:42 PM	17043
Surr: BFB	91.1	80-120		%REC	1	1/2/2015 3:38:42 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	1/2/2015 3:38:42 PM	17043
Toluene	ND	0.047		mg/Kg	1	1/2/2015 3:38:42 PM	17043
Ethylbenzene	ND	0.047		mg/Kg	1	1/2/2015 3:38:42 PM	17043
Xylenes, Total	ND	0.094		mg/Kg	1	1/2/2015 3:38:42 PM	17043
Surr: 4-Bromofluorobenzene	95.0	80-120		%REC	1	1/2/2015 3:38:42 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	1.1	0.30		mg/Kg	1	1/2/2015 2:46:45 PM	17052
Chloride	ND	1.5		mg/Kg	1	1/2/2015 2:46:45 PM	17052
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/2/2015 2:46:45 PM	17052
Bromide	ND	0.30		mg/Kg	1	1/2/2015 2:46:45 PM	17052
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	1/2/2015 2:46:45 PM	17052
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/2/2015 2:59:10 PM	17052
Sulfate	4400	75		mg/Kg	50	1/5/2015 7:08:33 PM	17052
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 4:00:48 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.6		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Barium	3.9	0.10		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Cadmium	ND	0.10		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Calcium	31000	260		mg/Kg	10	1/2/2015 3:02:39 PM	17044
Chromium	0.99	0.31		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Lead	1.3	0.26		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Magnesium	780	26		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Manganese	680	1.0		mg/Kg	10	1/2/2015 3:02:39 PM	17044
Potassium	250	52		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Selenium	ND	2.6		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Silver	ND	0.26		mg/Kg	1	1/2/2015 2:33:41 PM	17044
Sodium	ND	26		mg/Kg	1	1/2/2015 2:33:41 PM	17044

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.
	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

**Analytical Report**

Lab Order 1412B93

Date Reported: 1/16/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering

**Client Sample ID:** Cell 11A

**Project:** JFJ Landfarm

**Collection Date:** 12/29/2014 9:00:00 AM

**Lab ID:** 1412B93-007

**Matrix:** SOIL

**Received Date:** 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/2/2015 11:03:18 AM	17041
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/2/2015 11:03:18 AM	17041
Surr: DNOP	94.2	63.5-128		%REC	1	1/2/2015 11:03:18 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/2/2015 4:07:28 PM	17043
Surr: BFB	91.3	80-120		%REC	1	1/2/2015 4:07:28 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	1/2/2015 4:07:28 PM	17043
Toluene	ND	0.046		mg/Kg	1	1/2/2015 4:07:28 PM	17043
Ethylbenzene	ND	0.046		mg/Kg	1	1/2/2015 4:07:28 PM	17043
Xylenes, Total	ND	0.092		mg/Kg	1	1/2/2015 4:07:28 PM	17043
Surr: 4-Bromofluorobenzene	94.0	80-120		%REC	1	1/2/2015 4:07:28 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	0.46	0.30		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Chloride	ND	1.5		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Bromide	ND	0.30		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	1/6/2015 11:40:40 AM	17085
Sulfate	3.4	1.5		mg/Kg	1	1/6/2015 11:40:40 AM	17085
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 4:02:32 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.4		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Barium	130	0.095		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Cadmium	ND	0.095		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Calcium	1400	24		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Chromium	2.4	0.29		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Lead	2.5	0.24		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Magnesium	1100	24		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Manganese	140	0.095		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Potassium	500	48		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Selenium	ND	2.4		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Silver	ND	0.24		mg/Kg	1	1/2/2015 2:35:43 PM	17044
Sodium	26	24		mg/Kg	1	1/2/2015 2:35:43 PM	17044

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.

Analytical Report

Lab Order 1412B93

Date Reported: 1/16/2015

CLIENT: Blagg Engineering

Client Sample ID: Cell 12B

Project: JFJ Landfarm

Collection Date: 12/29/2014 8:50:00 AM

Lab ID: 1412B93-008

Matrix: SOIL

Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/2/2015 11:24:47 AM	17041
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/2/2015 11:24:47 AM	17041
Surr: DNOP	93.1	63.5-128		%REC	1	1/2/2015 11:24:47 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/2/2015 4:36:14 PM	17043
Surr: BFB	91.3	80-120		%REC	1	1/2/2015 4:36:14 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	1/2/2015 4:36:14 PM	17043
Toluene	ND	0.049		mg/Kg	1	1/2/2015 4:36:14 PM	17043
Ethylbenzene	ND	0.049		mg/Kg	1	1/2/2015 4:36:14 PM	17043
Xylenes, Total	ND	0.099		mg/Kg	1	1/2/2015 4:36:14 PM	17043
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	1/2/2015 4:36:14 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>Igp</b>
Fluoride	2.8	0.30		mg/Kg	1	1/6/2015 2:09:34 PM	17085
Chloride	ND	1.5		mg/Kg	1	1/6/2015 2:09:34 PM	17085
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/6/2015 2:09:34 PM	17085
Bromide	ND	0.30		mg/Kg	1	1/6/2015 2:09:34 PM	17085
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	1/6/2015 2:09:34 PM	17085
Phosphorus, Orthophosphate (As P)	ND	30		mg/Kg	20	1/6/2015 2:21:59 PM	17085
Sulfate	3900	75		mg/Kg	50	1/8/2015 12:05:21 AM	17085
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.033		mg/Kg	1	1/6/2015 4:04:20 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.5		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Barium	11	0.098		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Cadmium	ND	0.098		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Calcium	6000	120		mg/Kg	5	1/2/2015 3:04:23 PM	17044
Chromium	1.8	0.29		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Lead	1.9	0.25		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Magnesium	900	25		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Manganese	140	0.098		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Potassium	320	49		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Selenium	ND	2.5		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Silver	ND	0.25		mg/Kg	1	1/2/2015 2:37:21 PM	17044
Sodium	ND	25		mg/Kg	1	1/2/2015 2:37:21 PM	17044

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  
 Project: JFJ Landfarm  
 Lab ID: 1412B93-009

Matrix: SOIL

Client Sample ID: Cell 13C  
 Collection Date: 12/29/2014 10:15:00 AM  
 Received Date: 12/31/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	10	10		mg/Kg	1	1/2/2015 11:46:12 AM	17041
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/2/2015 11:46:12 AM	17041
Surr: DNOP	107	63.5-128		%REC	1	1/2/2015 11:46:12 AM	17041
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/2/2015 5:05:01 PM	17043
Surr: BFB	91.2	80-120		%REC	1	1/2/2015 5:05:01 PM	17043
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	1/2/2015 5:05:01 PM	17043
Toluene	ND	0.047		mg/Kg	1	1/2/2015 5:05:01 PM	17043
Ethylbenzene	ND	0.047		mg/Kg	1	1/2/2015 5:05:01 PM	17043
Xylenes, Total	ND	0.093		mg/Kg	1	1/2/2015 5:05:01 PM	17043
Surr: 4-Bromofluorobenzene	94.5	80-120		%REC	1	1/2/2015 5:05:01 PM	17043
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: lgp
Fluoride	0.46	0.30		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Chloride	3.6	1.5		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Bromide	ND	0.30		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Nitrogen, Nitrate (As N)	0.38	0.30		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	1/6/2015 2:59:13 PM	17085
Sulfate	66	1.5		mg/Kg	1	1/6/2015 2:59:13 PM	17085
<b>EPA METHOD 7471: MERCURY</b>							Analyst: MMD
Mercury	ND	0.033		mg/Kg	1	1/6/2015 4:06:06 PM	17088
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: JLF
Arsenic	ND	2.6		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Barium	210	0.10		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Cadmium	ND	0.10		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Calcium	2300	26		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Chromium	1.6	0.31		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Lead	1.9	0.26		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Magnesium	1100	26		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Manganese	150	0.10		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Potassium	520	52		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Selenium	ND	2.6		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Silver	ND	0.26		mg/Kg	1	1/2/2015 2:39:23 PM	17044
Sodium	180	26		mg/Kg	1	1/2/2015 2:39:23 PM	17044

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

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#: 1412B93  
16-Jan-15

Client: Blagg Engineering  
Project: JFJ Landfarm

Sample ID	<b>MB-17052</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>17052</b>	RunNo:	<b>23466</b>					
Prep Date:	<b>1/2/2015</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693398</b>	Units:	<b>mg/Kg</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P)	ND	1.5								
Sulfate	ND	1.5								

Sample ID	<b>LCS-17052</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>17052</b>	RunNo:	<b>23466</b>					
Prep Date:	<b>1/2/2015</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693400</b>	Units:	<b>mg/Kg</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	99.3	90	110			
Chloride	14	1.5	15.00	0	94.3	90	110			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	96.7	90	110			
Bromide	7.3	0.30	7.500	0	98.0	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	98.3	90	110			
Phosphorus, Orthophosphate (As P)	14	1.5	15.00	0	92.7	90	110			
Sulfate	29	1.5	30.00	0	95.2	90	110			

Sample ID	<b>1412B93-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>Cell 2G</b>	Batch ID:	<b>17052</b>	RunNo:	<b>23466</b>					
Prep Date:	<b>1/2/2015</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693404</b>	Units:	<b>mg/Kg</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.7	0.30	1.500	0.7357	62.3	13.6	100			
Chloride	15	1.5	15.00	0	98.7	71.6	122			
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	96.3	83.2	106			
Bromide	7.4	0.30	7.500	0	98.6	87	105			
Nitrogen, Nitrate (As N)	7.6	0.30	7.500	0	101	85.3	110			

Sample ID	<b>1412B93-001BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>Cell 2G</b>	Batch ID:	<b>17052</b>	RunNo:	<b>23466</b>					
Prep Date:	<b>1/2/2015</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693405</b>	Units:	<b>mg/Kg</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.7	0.30	1.500	0.7357	62.0	13.6	100	0.298	20	
Chloride	14	1.5	15.00	0	96.2	71.6	122	2.58	20	
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.4	83.2	106	2.01	20	

**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#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	1412B93-001BMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	Cell 2G		Batch ID:	17052		RunNo:	23466				
Prep Date:	1/2/2015		Analysis Date:	1/2/2015		SeqNo:	693405		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Bromide	7.3	0.30	7.500	0	96.9	87	105	1.75	20		
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0	100	85.3	110	0.462	20		

Sample ID	MB-17085		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	17085		RunNo:	23511				
Prep Date:	1/6/2015		Analysis Date:	1/6/2015		SeqNo:	694508		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	ND	0.30									
Chloride	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.30									
Bromide	ND	0.30									
Nitrogen, Nitrate (As N)	ND	0.30									
Phosphorus, Orthophosphate (As P)	ND	1.5									
Sulfate	ND	1.5									

Sample ID	LCS-17085		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	17085		RunNo:	23511				
Prep Date:	1/6/2015		Analysis Date:	1/6/2015		SeqNo:	694509		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	1.5	0.30	1.500	0	99.5	90	110				
Chloride	14	1.5	15.00	0	94.8	90	110				
Nitrogen, Nitrite (As N)	2.9	0.30	3.000	0	98.3	90	110				
Bromide	7.5	0.30	7.500	0	99.4	90	110				
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	98.7	90	110				
Phosphorus, Orthophosphate (As P)	14	1.5	15.00	0	93.1	90	110				
Sulfate	29	1.5	30.00	0	95.7	90	110				

Sample ID	1412B93-007BMS		SampType:	MS		TestCode:	EPA Method 300.0: Anions				
Client ID:	Cell 11A		Batch ID:	17085		RunNo:	23511				
Prep Date:	1/6/2015		Analysis Date:	1/6/2015		SeqNo:	694519		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	1.6	0.30	1.500	0.4587	77.2	13.6	100				
Chloride	15	1.5	15.00	0	97.6	71.6	122				
Nitrogen, Nitrite (As N)	3.0	0.30	3.000	0	99.6	83.2	106				
Bromide	7.6	0.30	7.500	0	101	87	105				
Nitrogen, Nitrate (As N)	7.7	0.30	7.500	0.2474	99.5	85.3	110				
Phosphorus, Orthophosphate (As P)	11	1.5	15.00	0	70.3	16.5	79.8				

**Qualifiers:**

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- 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#: 1412B93

16-Jan-15

**Client:** Blagg Engineering

**Project:** JFJ Landfarm

Sample ID	<b>1412B93-007BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>Cell 11A</b>	Batch ID:	<b>17085</b>	RunNo:	<b>23511</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694519</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	32	1.5	30.00	3.384	97.0	57.7	142			

Sample ID	<b>1412B93-007BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>Cell 11A</b>	Batch ID:	<b>17085</b>	RunNo:	<b>23511</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694520</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.30	1.500	0.4587	78.3	13.6	100	0.956	20	
Chloride	15	1.5	15.00	0	99.7	71.6	122	2.08	20	
Nitrogen, Nitrite (As N)	3.0	0.30	3.000	0	101	83.2	106	1.07	20	
Bromide	7.6	0.30	7.500	0	101	87	105	0.0947	20	
Nitrogen, Nitrate (As N)	7.7	0.30	7.500	0.2474	99.7	85.3	110	0.250	20	
Phosphorus, Orthophosphate (As P)	11	1.5	15.00	0	70.6	16.5	79.8	0.388	20	
Sulfate	33	1.5	30.00	3.384	99.1	57.7	142	1.91	20	

**Qualifiers:**

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- 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#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-17041</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>17041</b>	RunNo:	<b>23412</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>12/31/2014</b>	SeqNo:	<b>692482</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.0		10.00		79.9	63.5	128			

Sample ID	<b>LCS-17041</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>17041</b>	RunNo:	<b>23412</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>12/31/2014</b>	SeqNo:	<b>692503</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.2	67.8	130			
Surr: DNOP	4.1		5.000		81.8	63.5	128			

**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
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- 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#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID <b>MB-17043</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>17043</b>	RunNo: <b>23463</b>								
Prep Date: <b>12/31/2014</b>	Analysis Date: <b>1/2/2015</b>	SeqNo: <b>693323</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.1	80	120			

Sample ID <b>LCS-17043</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>17043</b>	RunNo: <b>23463</b>								
Prep Date: <b>12/31/2014</b>	Analysis Date: <b>1/2/2015</b>	SeqNo: <b>693325</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.1	65.8	139			
Surr: BFB	960		1000		95.7	80	120			

Sample ID <b>1412B93-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>Cell 2G</b>	Batch ID: <b>17043</b>	RunNo: <b>23463</b>								
Prep Date: <b>12/31/2014</b>	Analysis Date: <b>1/2/2015</b>	SeqNo: <b>693327</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.41	0	87.6	47.9	144			
Surr: BFB	950		976.6		96.9	80	120			

Sample ID <b>1412B93-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>Cell 2G</b>	Batch ID: <b>17043</b>	RunNo: <b>23463</b>								
Prep Date: <b>12/31/2014</b>	Analysis Date: <b>1/2/2015</b>	SeqNo: <b>693328</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.37	0	94.6	47.9	144	7.58	29.9	
Surr: BFB	970		974.7		99.7	80	120	0	0	

### Qualifiers:

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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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-17043</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>17043</b>	RunNo:	<b>23463</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693341</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	80	120			

Sample ID	<b>LCS-17043</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>17043</b>	RunNo:	<b>23463</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693342</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.4	80	120			
Toluene	0.97	0.050	1.000	0	97.3	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Sample ID	<b>1412B93-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>Cell 3G</b>	Batch ID:	<b>17043</b>	RunNo:	<b>23463</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693345</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.049	0.9852	0	98.7	69.2	126			
Toluene	0.97	0.049	0.9852	0.01279	97.0	65.6	128			
Ethylbenzene	0.99	0.049	0.9852	0.009605	99.8	65.5	138			
Xylenes, Total	2.9	0.099	2.956	0.01713	99.1	63	139			
Surr: 4-Bromofluorobenzene	1.0		0.9852		101	80	120			

Sample ID	<b>1412B93-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>Cell 3G</b>	Batch ID:	<b>17043</b>	RunNo:	<b>23463</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693346</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.049	0.9881	0	98.3	69.2	126	0.113	18.5	
Toluene	0.95	0.049	0.9881	0.01279	94.5	65.6	128	2.29	20.6	
Ethylbenzene	0.98	0.049	0.9881	0.009605	98.4	65.5	138	1.14	20.1	
Xylenes, Total	2.9	0.099	2.964	0.01713	96.6	63	139	2.27	21.1	
Surr: 4-Bromofluorobenzene	0.98		0.9881		99.5	80	120	0	0	

**Qualifiers:**

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- 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#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-17088</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 7471: Mercury</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>17088</b>	RunNo:	<b>23505</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694285</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	<b>LCS-17088</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 7471: Mercury</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>17088</b>	RunNo:	<b>23505</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694286</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120			

Sample ID	<b>1412B93-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 7471: Mercury</b>					
Client ID:	<b>Cell 2G</b>	Batch ID:	<b>17088</b>	RunNo:	<b>23505</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694288</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1667	0	105	75	125			

Sample ID	<b>1412B93-001BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 7471: Mercury</b>					
Client ID:	<b>Cell 2G</b>	Batch ID:	<b>17088</b>	RunNo:	<b>23505</b>					
Prep Date:	<b>1/6/2015</b>	Analysis Date:	<b>1/6/2015</b>	SeqNo:	<b>694291</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	104	75	125	1.43	20	

### Qualifiers:

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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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-17044</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>17044</b>	RunNo:	<b>23457</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693240</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Calcium	ND	25								
Chromium	ND	0.30								
Lead	ND	0.25								
Magnesium	ND	25								
Manganese	ND	0.10								
Potassium	ND	50								
Selenium	ND	2.5								
Silver	ND	0.25								
Sodium	ND	25								

Sample ID	<b>LCS-17044</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>17044</b>	RunNo:	<b>23457</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693241</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	101	80	120			
Barium	25	0.10	25.00	0	99.3	80	120			
Cadmium	25	0.10	25.00	0	98.5	80	120			
Calcium	2500	25	2500	0	98.9	80	120			
Chromium	25	0.30	25.00	0	98.1	80	120			
Lead	24	0.25	25.00	0	95.0	80	120			
Magnesium	2500	25	2500	0	102	80	120			
Manganese	24	0.10	25.00	0	97.5	80	120			
Potassium	2500	50	2500	0	98.4	80	120			
Selenium	23	2.5	25.00	0	93.9	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			
Sodium	2500	25	2500	0	101	80	120			

Sample ID	<b>1412B93-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>Cell 2G</b>	Batch ID:	<b>17044</b>	RunNo:	<b>23457</b>					
Prep Date:	<b>12/31/2014</b>	Analysis Date:	<b>1/2/2015</b>	SeqNo:	<b>693245</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.6	25.63	1.776	90.9	75	125			
Barium	39	0.10	25.63	17.38	82.7	75	125			
Cadmium	23	0.10	25.63	0	88.2	75	125			
Chromium	24	0.31	25.63	1.522	88.9	75	125			

**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#: 1412B93

16-Jan-15

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	1412B93-001BMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	Cell 2G	Batch ID:	17044	RunNo:	23457					
Prep Date:	12/31/2014	Analysis Date:	1/2/2015	SeqNo:	693245	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	23	0.26	25.63	2.608	80.7	75	125			
Magnesium	3300	26	2563	860.2	96.3	75	125			
Potassium	2700	51	2563	377.5	89.2	75	125			
Selenium	22	2.6	25.63	0	87.5	75	125			
Silver	4.7	0.26	5.125	0	91.5	75	125			
Sodium	2300	26	2563	29.49	88.7	75	125			

Sample ID	1412B93-001BMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	Cell 2G	Batch ID:	17044	RunNo:	23457					
Prep Date:	12/31/2014	Analysis Date:	1/2/2015	SeqNo:	693246	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.4	24.15	1.776	94.4	75	125	1.97	20	
Barium	42	0.097	24.15	17.38	104	75	125	9.61	20	
Cadmium	22	0.097	24.15	0	89.5	75	125	4.37	20	
Chromium	23	0.29	24.15	1.522	89.7	75	125	4.69	20	
Lead	22	0.24	24.15	2.608	81.6	75	125	4.23	20	
Magnesium	3100	24	2415	860.2	94.7	75	125	5.60	20	
Potassium	2500	48	2415	377.5	87.4	75	125	6.81	20	
Selenium	21	2.4	24.15	0	88.5	75	125	4.82	20	
Silver	4.5	0.24	4.831	0	92.8	75	125	4.48	20	
Sodium	2200	24	2415	29.49	90.8	75	125	3.48	20	

Sample ID	1412B93-001BMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	Cell 2G	Batch ID:	17044	RunNo:	23495					
Prep Date:	12/31/2014	Analysis Date:	1/6/2015	SeqNo:	694107	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	160	0.10	25.63	141.9	72.2	75	125			S

Sample ID	1412B93-001BMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	Cell 2G	Batch ID:	17044	RunNo:	23495					
Prep Date:	12/31/2014	Analysis Date:	1/6/2015	SeqNo:	694108	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	140	0.097	24.15	141.9	0.777	75	125	12.1	20	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



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: **1412B93**

RcptNo: **1**

Received by/date: AT 12/31/14

Logged By: **Anne Thorne** 12/31/2014 7:30:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 12/31/2014 *Anne Thorne*

Reviewed By: **FO** 12/31/14

### 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° 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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### 18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact?	Seal No.	Seal Date	Signed By
1	1.3	Good	Yes			



***BLAGG ENGINEERING, INC.***

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-1999

RECEIVED  
ENVIRONMENTAL  
2014 DEC 29 10 11 AM

December 29, 2014

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

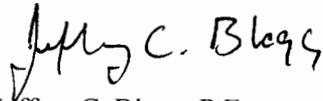
Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2014 3<sup>rd</sup> Quarterly Report on Treatment Zone Monitoring

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on September 26, 2014.

The facility permit describes annual cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B, and chlorides by Method 300.0. For this event samples were collected from active cell units 2h, 3e, 4e, 7h, 8g, 9e, 11g, 12h and 13g (see attached figure). There was no detection of hydrocarbons by either Method 8015B or Method 8021 in any sample. Chlorides tested at non-detect. Future analytical testing will include motor oil range (MRO) in 8015B reporting, as requested by NMOCD.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

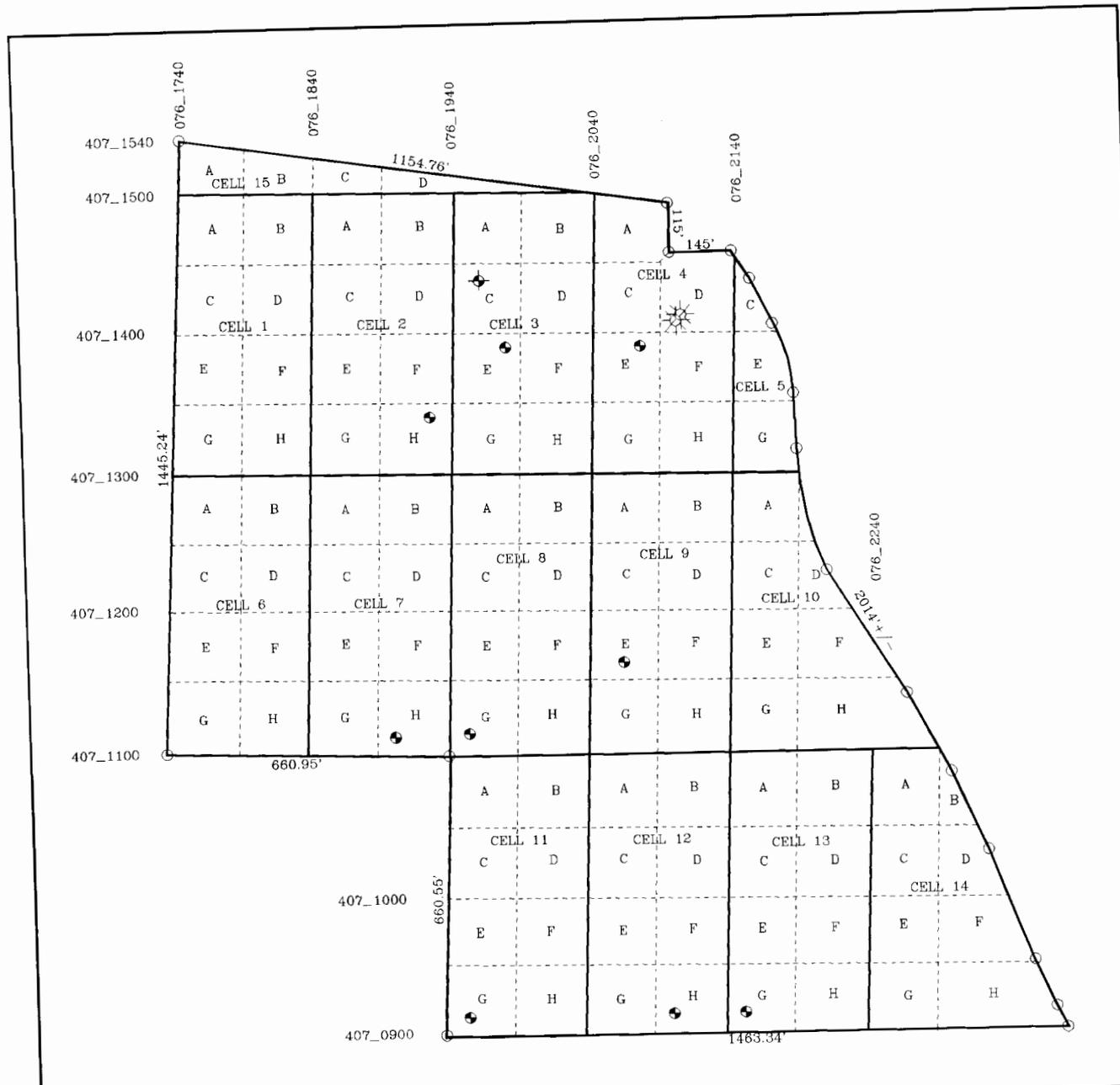
Respectfully submitted:  
***Blagg Engineering, Inc.***



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



LEGEND

- Active Gas Well
- PxA Gas Well
- Sample Point

N

0                      500                      1000 Feet

JFJ LANDFARM FACILITY			BLAGG ENGINEERING, INC.		
DATE: SEP 2014	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199		



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

October 06, 2014

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

RE: JFJ Landfarm

OrderNo.: 1409F07

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/30/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409F07

Date Reported: 10/6/2014

**CLIENT:** Blagg Engineering

**Client Sample ID:** Cell 2H

**Project:** JFJ Landfarm

**Collection Date:** 9/26/2014 2:10:00 PM

**Lab ID:** 1409F07-001

**Matrix:** SOIL

**Received Date:** 9/30/2014 7:00:00 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	10/1/2014 11:24:39 PM	15613
Surr: DNOP	99.1	57.9-140		%REC	1	10/1/2014 11:24:39 PM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/2/2014 2:50:46 AM	15622
Surr: BFB	90.7	80-120		%REC	1	10/2/2014 2:50:46 AM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	10/2/2014 2:50:46 AM	15622
Toluene	ND	0.048		mg/Kg	1	10/2/2014 2:50:46 AM	15622
Ethylbenzene	ND	0.048		mg/Kg	1	10/2/2014 2:50:46 AM	15622
Xylenes, Total	ND	0.097		mg/Kg	1	10/2/2014 2:50:46 AM	15622
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	10/2/2014 2:50:46 AM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 1:18:36 PM	15699

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.

Analytical Report

Lab Order 1409F07

Date Reported: 10/6/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 3E

Project: JFJ Landfarm

Collection Date: 9/26/2014 1:55:00 PM

Lab ID: 1409F07-002

Matrix: SOIL

Received Date: 9/30/2014 7:00:00 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	10/2/2014 12:54:35 AM	15613
Surr: DNOP	90.3	57.9-140		%REC	1	10/2/2014 12:54:35 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/2/2014 3:19:16 AM	15622
Surr: BFB	90.9	80-120		%REC	1	10/2/2014 3:19:16 AM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	10/2/2014 3:19:16 AM	15622
Toluene	ND	0.048		mg/Kg	1	10/2/2014 3:19:16 AM	15622
Ethylbenzene	ND	0.048		mg/Kg	1	10/2/2014 3:19:16 AM	15622
Xylenes, Total	ND	0.097		mg/Kg	1	10/2/2014 3:19:16 AM	15622
Surr: 4-Bromofluorobenzene	95.0	80-120		%REC	1	10/2/2014 3:19:16 AM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 1:31:01 PM	15699

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.**

**Analytical Report**  
 Lab Order 1409F07  
 Date Reported: 10/6/2014

**CLIENT:** Blagg Engineering **Client Sample ID:** Cell 4E  
**Project:** JFJ Landfarm **Collection Date:** 9/26/2014 1:45:00 PM  
**Lab ID:** 1409F07-003 **Matrix:** SOIL **Received Date:** 9/30/2014 7:00:00 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	10/2/2014 1:24:29 AM	15613
Surr: DNOP	103	57.9-140		%REC	1	10/2/2014 1:24:29 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2014 3:47:43 AM	15622
Surr: BFB	91.1	80-120		%REC	1	10/2/2014 3:47:43 AM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	10/2/2014 3:47:43 AM	15622
Toluene	ND	0.047		mg/Kg	1	10/2/2014 3:47:43 AM	15622
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2014 3:47:43 AM	15622
Xylenes, Total	ND	0.095		mg/Kg	1	10/2/2014 3:47:43 AM	15622
Surr: 4-Bromofluorobenzene	94.6	80-120		%REC	1	10/2/2014 3:47:43 AM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 1:43:25 PM	15699

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.

Analytical Report

Lab Order 1409F07

Date Reported: 10/6/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 7H

Project: JFJ Landfarm

Collection Date: 9/26/2014 1:15:00 PM

Lab ID: 1409F07-004

Matrix: SOIL

Received Date: 9/30/2014 7:00:00 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	10/2/2014 1:54:13 AM	15613
Surr: DNOP	101	57.9-140		%REC	1	10/2/2014 1:54:13 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/2/2014 3:29:04 PM	15622
Surr: BFB	87.1	80-120		%REC	1	10/2/2014 3:29:04 PM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/2/2014 3:29:04 PM	15622
Toluene	ND	0.050		mg/Kg	1	10/2/2014 3:29:04 PM	15622
Ethylbenzene	ND	0.050		mg/Kg	1	10/2/2014 3:29:04 PM	15622
Xylenes, Total	ND	0.099		mg/Kg	1	10/2/2014 3:29:04 PM	15622
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	10/2/2014 3:29:04 PM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 1:55:49 PM	15699

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.

Analytical Report

Lab Order 1409F07

Date Reported: 10/6/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 8G

Project: JFJ Landfarm

Collection Date: 9/26/2014 1:22:00 PM

Lab ID: 1409F07-005

Matrix: SOIL

Received Date: 9/30/2014 7:00:00 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	10/2/2014 2:24:13 AM	15613
Surr: DNOP	99.6	57.9-140		%REC	1	10/2/2014 2:24:13 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2014 3:59:18 PM	15622
Surr: BFB	86.5	80-120		%REC	1	10/2/2014 3:59:18 PM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	10/2/2014 3:59:18 PM	15622
Toluene	ND	0.047		mg/Kg	1	10/2/2014 3:59:18 PM	15622
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2014 3:59:18 PM	15622
Xylenes, Total	ND	0.095		mg/Kg	1	10/2/2014 3:59:18 PM	15622
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/2/2014 3:59:18 PM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 2:08:13 PM	15699

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 1409F07

Date Reported: 10/6/2014

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering

**Client Sample ID:** Cell 11G

**Project:** JFJ Landfarm

**Collection Date:** 9/26/2014 2:25:00 PM

**Lab ID:** 1409F07-007

**Matrix:** SOIL

**Received Date:** 9/30/2014 7:00:00 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	10/2/2014 3:23:39 AM	15613
Surr: DNOP	82.5	57.9-140		%REC	1	10/2/2014 3:23:39 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/2/2014 10:30:09 PM	15622
Surr: BFB	85.8	80-120		%REC	1	10/2/2014 10:30:09 PM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	10/2/2014 10:30:09 PM	15622
Toluene	ND	0.047		mg/Kg	1	10/2/2014 10:30:09 PM	15622
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2014 10:30:09 PM	15622
Xylenes, Total	ND	0.094		mg/Kg	1	10/2/2014 10:30:09 PM	15622
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	10/2/2014 10:30:09 PM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 2:33:03 PM	15699

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

- 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, Inc.**

**Analytical Report**  
 Lab Order 1409F07  
 Date Reported: 10/6/2014

**CLIENT:** Blagg Engineering  
**Project:** JFJ Landfarm  
**Lab ID:** 1409F07-008

**Matrix:** SOIL

**Client Sample ID:** Cell 12H  
**Collection Date:** 9/26/2014 2:35:00 PM  
**Received Date:** 9/30/2014 7:00:00 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	10/2/2014 3:53:13 AM	15613
Surr: DNOP	80.6	57.9-140		%REC	1	10/2/2014 3:53:13 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2014 12:00:40 AM	15622
Surr: BFB	89.5	80-120		%REC	1	10/4/2014 12:00:40 AM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	10/2/2014 11:00:22 PM	15622
Toluene	ND	0.047		mg/Kg	1	10/2/2014 11:00:22 PM	15622
Ethylbenzene	ND	0.047		mg/Kg	1	10/2/2014 11:00:22 PM	15622
Xylenes, Total	ND	0.094		mg/Kg	1	10/2/2014 11:00:22 PM	15622
Surr: 4-Bromofluorobenzene	86.8	80-120		%REC	1	10/2/2014 11:00:22 PM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 2:45:28 PM	15699

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.**

**Analytical Report**  
 Lab Order 1409F07  
 Date Reported: 10/6/2014

**CLIENT:** Blagg Engineering  
**Project:** JFJ Landfarm  
**Lab ID:** 1409F07-009

**Matrix:** SOIL

**Client Sample ID:** Cell 13G  
**Collection Date:** 9/26/2014 2:46:00 PM  
**Received Date:** 9/30/2014 7:00:00 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	10/2/2014 4:22:56 AM	15613
Surr: DNOP	74.0	57.9-140		%REC	1	10/2/2014 4:22:56 AM	15613
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/2/2014 11:30:30 PM	15622
Surr: BFB	88.0	80-120		%REC	1	10/2/2014 11:30:30 PM	15622
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	10/2/2014 11:30:30 PM	15622
Toluene	ND	0.048		mg/Kg	1	10/2/2014 11:30:30 PM	15622
Ethylbenzene	ND	0.048		mg/Kg	1	10/2/2014 11:30:30 PM	15622
Xylenes, Total	ND	0.097		mg/Kg	1	10/2/2014 11:30:30 PM	15622
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	10/2/2014 11:30:30 PM	15622
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	10/3/2014 2:57:52 PM	15699

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#: 1409F07

06-Oct-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID: <b>MB-15699</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>15699</b>	RunNo: <b>21676</b>								
Prep Date: <b>10/3/2014</b>	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>636273</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-15699</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>15699</b>	RunNo: <b>21676</b>								
Prep Date: <b>10/3/2014</b>	Analysis Date: <b>10/3/2014</b>	SeqNo: <b>636274</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	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#: 1409F07

06-Oct-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID: 1409F07-001AMS	SampType: MS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: Cell 2H	Batch ID: 15613	RunNo: 21572								
Prep Date: 9/30/2014	Analysis Date: 10/1/2014	SeqNo: 633750	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.8	49.12	0	110	40.1	152			
Surr: DNOP	5.0		4.912		101	57.9	140			

Sample ID: 1409F07-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: Cell 2H	Batch ID: 15613	RunNo: 21572								
Prep Date: 9/30/2014	Analysis Date: 10/2/2014	SeqNo: 633751	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.65	0	101	40.1	152	7.50	32.1	
Surr: DNOP	4.5		4.965		91.5	57.9	140	0	0	

Sample ID: MB-15613	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 15613	RunNo: 21572								
Prep Date: 9/30/2014	Analysis Date: 10/1/2014	SeqNo: 634769	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		100	57.9	140			

Sample ID: LCS-15613	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 15613	RunNo: 21572								
Prep Date: 9/30/2014	Analysis Date: 10/1/2014	SeqNo: 634770	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	68.6	130			
Surr: DNOP	5.2		5.000		103	57.9	140			

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409F07

06-Oct-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID: <b>MB-15622</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>15622</b>	RunNo: <b>21587</b>								
Prep Date: <b>9/30/2014</b>	Analysis Date: <b>10/1/2014</b>	SeqNo: <b>632616</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		89.8	80	120			

Sample ID: <b>LCS-15622</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>15622</b>	RunNo: <b>21587</b>								
Prep Date: <b>9/30/2014</b>	Analysis Date: <b>10/1/2014</b>	SeqNo: <b>632617</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	65.8	139			
Surr: BFB	970		1000		97.2	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#: 1409F07

06-Oct-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID: <b>MB-15622</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>15622</b>	RunNo: <b>21587</b>								
Prep Date: <b>9/30/2014</b>	Analysis Date: <b>10/1/2014</b>	SeqNo: <b>632648</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	80	120			

Sample ID: <b>LCS-15622</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>15622</b>	RunNo: <b>21587</b>								
Prep Date: <b>9/30/2014</b>	Analysis Date: <b>10/1/2014</b>	SeqNo: <b>632649</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	95.5	80	120			
Toluene	0.95	0.050	1.000	0	94.8	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	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: **1409F07**

RcptNo: **1**

Received by/date:	<i>[Signature]</i>	<b>09/30/14</b>
Logged By:	<b>Lindsay Mangin</b>	9/30/2014 7:00:00 AM <i>[Signature]</i>
Completed By:	<b>Lindsay Mangin</b>	9/30/2014 8:10:58 AM <i>[Signature]</i>
Reviewed By:	<b>TO</b>	<b>09/30/14</b>

### Chain of Custody

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

### Log In

- Was an attempt made to cool the samples? Yes  No  NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- Sample(s) in proper container(s)? Yes  No
- Sufficient sample volume for indicated test(s)? Yes  No
- Are samples (except VOA and ONG) properly preserved? Yes  No
- Was preservative added to bottles? Yes  No  NA
- VOA vials have zero headspace? Yes  No  No VOA Vials
- Were any sample containers received broken? Yes  No
- Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- Are matrices correctly identified on Chain of Custody? Yes  No
- Is it clear what analyses were requested? Yes  No
- 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)

- 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	3.1	Good	Yes			



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

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

**Analysis Request**

Standard  Rush  
 Project Name: JFJ Landfarm  
 Project #: \_\_\_\_\_

Project Manager: Jeff Blagg  
 email or Fax #: \_\_\_\_\_  
 Standard  Level 4 (Full Validation)  
 Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Sampler: Jeff Blagg  
 On Ice:  Yes  No  
 Sample Temperature: 3.1

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)
09/26/2014	14:10	Soil	Cell 2H	4oz x 1	cool	1409FO7 -001	x	x	x	
09/26/2014	13:55	Soil	Cell 3E	4oz x 1	cool	-002	x	x	x	
09/26/2014	13:45	Soil	Cell 4E	4oz x 1	cool	-003	x	x	x	
09/26/2014	13:15	Soil	Cell 7H	4oz x 1	cool	-004	x	x	x	
09/26/2014	13:22	Soil	Cell 8G	4oz x 1	cool	-005	x	x	x	
09/26/2014	13:32	Soil	Cell 9E	4oz x 1	cool	-006	x	x	x	
09/26/2014	14:25	Soil	Cell 11G	4oz x 1	cool	-007	x	x	x	
09/26/2014	14:35	Soil	Cell 12H	4oz x 1	cool	-008	x	x	x	
09/26/2014	14:46	Soil	Cell 13G	4oz x 1	cool	-009	x	x	x	

Relinquished by: Jeff Blagg  
 Date: 9/29/2014 Time: 14:21  
 Relinquished by: Kristine Johnston  
 Date: 9/29/14 Time: 17:24  
 Received by: Kristine Johnston  
 Date: 9/29/2014 Time: 14:21  
 Received by: Jeff Blagg  
 Date: 9/29/14 Time: 09:30

Remarks: Bill JFJ  
 email results to:  
 marcella@industrialecosystems.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.

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

RECEIVED  
2014 SEP 23 10 30 AM

September 23, 2014

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2014 2<sup>nd</sup> Quarterly Report on Treatment Zone Monitoring

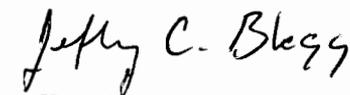
On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on June 30, 2014.

The facility permit describes annual cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Methods 8015B and 418.1, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B, and chlorides by Method 300.0. For this event samples were collected from active cell units 2g, 3f, 4e, 7e, 8a, 9h, 11h, 12e and 13e (see attached figure). There was no detection of hydrocarbons by either Method 8015B or Method 418.1 in any sample. Chlorides tested at non-detect.

Pursuant to communications between JFJ Landfarm personnel and Mr. Jim Griswold of NMOCD, future testing of TPH by Method 418.1 will not be required. Method 8015B will be the approved TPH test method.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

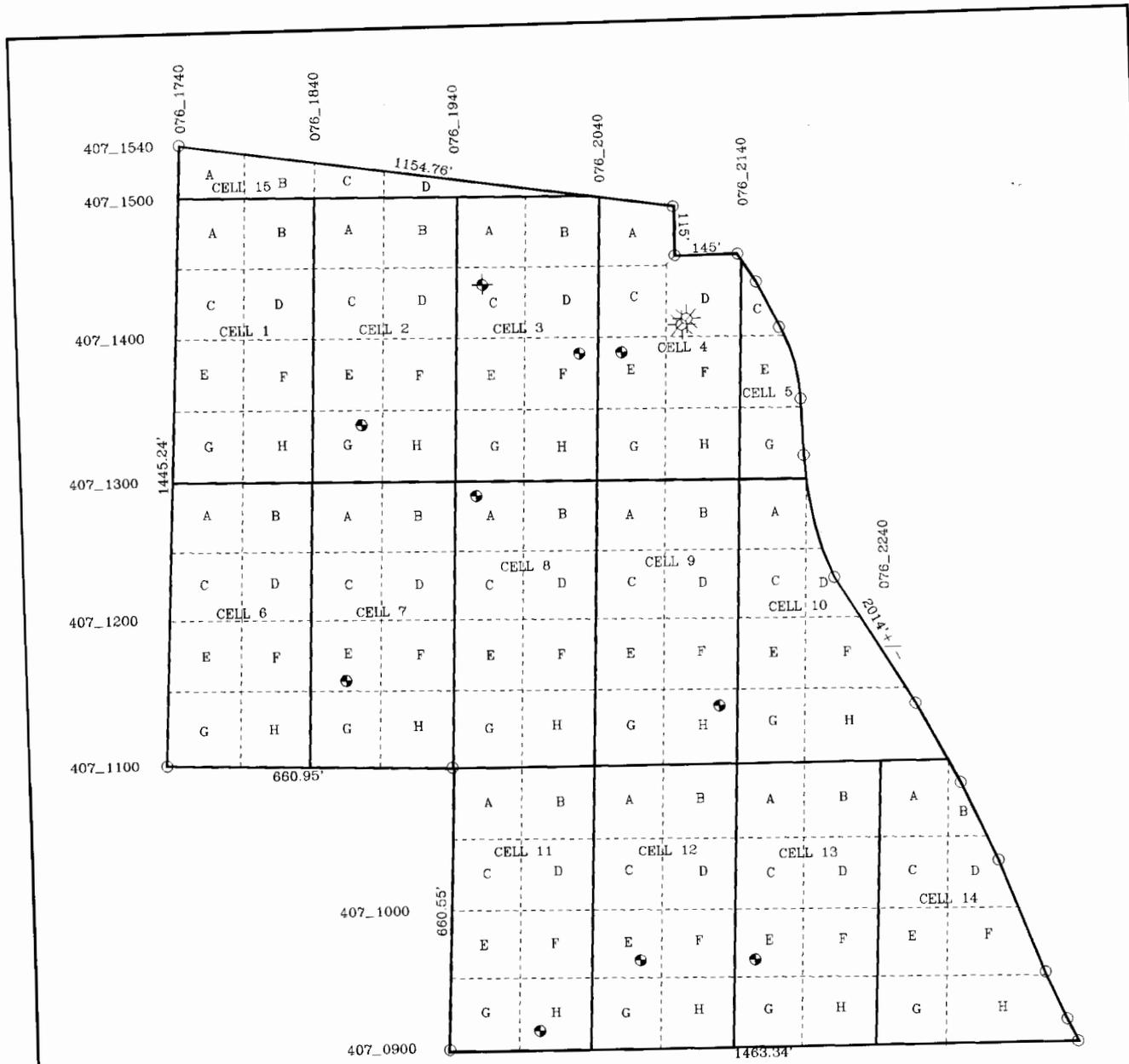
Respectfully submitted:  
**Blagg Engineering, Inc.**



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



LEGEND

- Active Gas Well
- PxA Gas Well
- Sample Point

0                      500                      1000 Feet

JFJ LANDFARM FACILITY			BLAGG ENGINEERING, INC.		
DATE: JUN 2014	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199		



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

July 10, 2014

Jeff Blagg

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 320-1183

FAX (505) 632-3903

RE: JFJ Landfarm

OrderNo.: 1407156

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 7/3/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 2G

Project: JFJ Landfarm

Collection Date: 6/30/2014 10:10:00 AM

Lab ID: 1407156-001

Matrix: SOIL

Received Date: 7/3/2014 7:06:00 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	7/8/2014 8:26:18 AM	14085
Surr: DNOP	93.4	57.9-140		%REC	1	7/8/2014 8:26:18 AM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/7/2014 4:14:45 PM	14058
Surr: BFB	97.2	80-120		%REC	1	7/7/2014 4:14:45 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	7/7/2014 4:14:45 PM	14058
Toluene	ND	0.050		mg/Kg	1	7/7/2014 4:14:45 PM	14058
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2014 4:14:45 PM	14058
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2014 4:14:45 PM	14058
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	7/7/2014 4:14:45 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 4:21:43 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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  
**Project:** JFJ Landfarm  
**Lab ID:** 1407156-002

**Matrix:** SOIL

**Client Sample ID:** Cell 3F  
**Collection Date:** 6/30/2014 10:30:00 AM  
**Received Date:** 7/3/2014 7:06:00 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	7/8/2014 1:33:06 PM	14085
Surr: DNOP	69.0	57.9-140		%REC	1	7/8/2014 1:33:06 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/7/2014 4:43:31 PM	14058
Surr: BFB	95.7	80-120		%REC	1	7/7/2014 4:43:31 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/7/2014 4:43:31 PM	14058
Toluene	ND	0.049		mg/Kg	1	7/7/2014 4:43:31 PM	14058
Ethylbenzene	ND	0.049		mg/Kg	1	7/7/2014 4:43:31 PM	14058
Xylenes, Total	ND	0.097		mg/Kg	1	7/7/2014 4:43:31 PM	14058
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	7/7/2014 4:43:31 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 4:34:08 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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  
**Project:** JFJ Landfarm  
**Lab ID:** 1407156-003

**Matrix:** SOIL

**Client Sample ID:** Cell 4E  
**Collection Date:** 6/30/2014 11:00:00 AM  
**Received Date:** 7/3/2014 7:06:00 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	7/8/2014 1:55:10 PM	14085
Surr: DNOP	78.0	57.9-140		%REC	1	7/8/2014 1:55:10 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/7/2014 5:12:18 PM	14058
Surr: BFB	96.5	80-120		%REC	1	7/7/2014 5:12:18 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	7/7/2014 5:12:18 PM	14058
Toluene	ND	0.048		mg/Kg	1	7/7/2014 5:12:18 PM	14058
Ethylbenzene	ND	0.048		mg/Kg	1	7/7/2014 5:12:18 PM	14058
Xylenes, Total	ND	0.095		mg/Kg	1	7/7/2014 5:12:18 PM	14058
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	7/7/2014 5:12:18 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 5:11:22 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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	Page 3 of 14
	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.

Analytical Report

Lab Order 1407156

Date Reported: 7/10/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 7E

Project: JFJ Landfarm

Collection Date: 6/30/2014 9:00:00 AM

Lab ID: 1407156-004

Matrix: SOIL

Received Date: 7/3/2014 7:06:00 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	7/8/2014 2:17:08 PM	14085
Surr: DNOP	61.6	57.9-140		%REC	1	7/8/2014 2:17:08 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/7/2014 8:32:59 PM	14058
Surr: BFB	94.2	80-120		%REC	1	7/7/2014 8:32:59 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	7/7/2014 8:32:59 PM	14058
Toluene	ND	0.046		mg/Kg	1	7/7/2014 8:32:59 PM	14058
Ethylbenzene	ND	0.046		mg/Kg	1	7/7/2014 8:32:59 PM	14058
Xylenes, Total	ND	0.092		mg/Kg	1	7/7/2014 8:32:59 PM	14058
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	7/7/2014 8:32:59 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 5:48:36 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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.

Analytical Report

Lab Order 1407156

Date Reported: 7/10/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 8A

Project: JFJ Landfarm

Collection Date: 6/30/2014 9:40:00 AM

Lab ID: 1407156-005

Matrix: SOIL

Received Date: 7/3/2014 7:06:00 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	7/8/2014 2:39:14 PM	14085
Surr: DNOP	71.5	57.9-140		%REC	1	7/8/2014 2:39:14 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/7/2014 9:01:43 PM	14058
Surr: BFB	95.2	80-120		%REC	1	7/7/2014 9:01:43 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	7/7/2014 9:01:43 PM	14058
Toluene	ND	0.048		mg/Kg	1	7/7/2014 9:01:43 PM	14058
Ethylbenzene	ND	0.048		mg/Kg	1	7/7/2014 9:01:43 PM	14058
Xylenes, Total	ND	0.096		mg/Kg	1	7/7/2014 9:01:43 PM	14058
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	7/7/2014 9:01:43 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 6:01:01 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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.

Analytical Report

Lab Order 1407156

Date Reported: 7/10/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 9H

Project: JFJ Landfarm

Collection Date: 6/30/2014 8:40:00 AM

Lab ID: 1407156-006

Matrix: SOIL

Received Date: 7/3/2014 7:06:00 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	7/9/2014 11:29:54 AM	14085
Surr: DNOP	43.9	57.9-140	S	%REC	1	7/9/2014 11:29:54 AM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/7/2014 9:30:25 PM	14058
Surr: BFB	93.8	80-120		%REC	1	7/7/2014 9:30:25 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/7/2014 9:30:25 PM	14058
Toluene	ND	0.049		mg/Kg	1	7/7/2014 9:30:25 PM	14058
Ethylbenzene	ND	0.049		mg/Kg	1	7/7/2014 9:30:25 PM	14058
Xylenes, Total	ND	0.097		mg/Kg	1	7/7/2014 9:30:25 PM	14058
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	7/7/2014 9:30:25 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 6:13:24 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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.

Analytical Report

Lab Order 1407156

Date Reported: 7/10/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 11H

Project: JFJ Landfarm

Collection Date: 6/30/2014 8:10:00 AM

Lab ID: 1407156-007

Matrix: SOIL

Received Date: 7/3/2014 7:06:00 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	7/8/2014 3:23:20 PM	14085
Surr: DNOP	71.6	57.9-140		%REC	1	7/8/2014 3:23:20 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/7/2014 9:59:06 PM	14058
Surr: BFB	94.5	80-120		%REC	1	7/7/2014 9:59:06 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/7/2014 9:59:06 PM	14058
Toluene	ND	0.049		mg/Kg	1	7/7/2014 9:59:06 PM	14058
Ethylbenzene	ND	0.049		mg/Kg	1	7/7/2014 9:59:06 PM	14058
Xylenes, Total	ND	0.098		mg/Kg	1	7/7/2014 9:59:06 PM	14058
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	7/7/2014 9:59:06 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 6:25:49 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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  
 Project: JFJ Landfarm  
 Lab ID: 1407156-008

Client Sample ID: Cell 12E  
 Collection Date: 6/30/2014 7:45:00 AM  
 Received Date: 7/3/2014 7:06:00 AM

Matrix: SOIL

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	7/8/2014 3:45:15 PM	14085
Surr: DNOP	73.3	57.9-140		%REC	1	7/8/2014 3:45:15 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/7/2014 10:27:45 PM	14058
Surr: BFB	93.2	80-120		%REC	1	7/7/2014 10:27:45 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	7/7/2014 10:27:45 PM	14058
Toluene	ND	0.049		mg/Kg	1	7/7/2014 10:27:45 PM	14058
Ethylbenzene	ND	0.049		mg/Kg	1	7/7/2014 10:27:45 PM	14058
Xylenes, Total	ND	0.098		mg/Kg	1	7/7/2014 10:27:45 PM	14058
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	7/7/2014 10:27:45 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 6:38:14 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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  
**Project:** JFJ Landfarm  
**Lab ID:** 1407156-009

**Client Sample ID:** Cell 13E  
**Collection Date:** 6/30/2014 7:25:00 AM  
**Received Date:** 7/3/2014 7:06:00 AM

**Matrix:** SOIL

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	7/8/2014 4:07:16 PM	14085
Surr: DNOP	59.1	57.9-140		%REC	1	7/8/2014 4:07:16 PM	14085
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/7/2014 10:56:23 PM	14058
Surr: BFB	97.2	80-120		%REC	1	7/7/2014 10:56:23 PM	14058
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	7/7/2014 10:56:23 PM	14058
Toluene	0.047	0.046		mg/Kg	1	7/7/2014 10:56:23 PM	14058
Ethylbenzene	0.055	0.046		mg/Kg	1	7/7/2014 10:56:23 PM	14058
Xylenes, Total	0.098	0.092		mg/Kg	1	7/7/2014 10:56:23 PM	14058
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	7/7/2014 10:56:23 PM	14058
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	7/8/2014 6:50:39 PM	14106
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>BCN</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/8/2014	14087

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#: 1407156

10-Jul-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-14106</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>14106</b>	RunNo:	<b>19753</b>					
Prep Date:	<b>7/8/2014</b>	Analysis Date:	<b>7/8/2014</b>	SeqNo:	<b>573864</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-14106</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>14106</b>	RunNo:	<b>19753</b>					
Prep Date:	<b>7/8/2014</b>	Analysis Date:	<b>7/8/2014</b>	SeqNo:	<b>573865</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	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#: 1407156

10-Jul-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-14087</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>14087</b>	RunNo:	<b>19743</b>					
Prep Date:	<b>7/7/2014</b>	Analysis Date:	<b>7/8/2014</b>	SeqNo:	<b>573493</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	<b>LCS-14087</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>14087</b>	RunNo:	<b>19743</b>					
Prep Date:	<b>7/7/2014</b>	Analysis Date:	<b>7/8/2014</b>	SeqNo:	<b>573499</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	105	80	120			

Sample ID	<b>LCSD-14087</b>	SampType:	<b>LCSD</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>14087</b>	RunNo:	<b>19743</b>					
Prep Date:	<b>7/7/2014</b>	Analysis Date:	<b>7/8/2014</b>	SeqNo:	<b>573506</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	109	80	120	3.88	20	

**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#: 1407156

10-Jul-14

**Client:** Blagg Engineering

**Project:** JFJ Landfarm

Sample ID <b>MB-14085</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>14085</b>	RunNo: <b>19699</b>								
Prep Date: <b>7/7/2014</b>	Analysis Date: <b>7/7/2014</b>	SeqNo: <b>572210</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.8		10.00		87.6	57.9	140			

Sample ID <b>LCS-14085</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>14085</b>	RunNo: <b>19699</b>								
Prep Date: <b>7/7/2014</b>	Analysis Date: <b>7/7/2014</b>	SeqNo: <b>572211</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	53	10	50.00	0	105	68.6	130			
Surr: DNOP	4.3		5.000		86.4	57.9	140			

Sample ID <b>1407156-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>Cell 2G</b>	Batch ID: <b>14085</b>	RunNo: <b>19731</b>								
Prep Date: <b>7/7/2014</b>	Analysis Date: <b>7/8/2014</b>	SeqNo: <b>573224</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	51	9.9	49.65	0	102	40.1	152			
Surr: DNOP	4.8		4.965		96.6	57.9	140			

Sample ID <b>1407156-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>Cell 2G</b>	Batch ID: <b>14085</b>	RunNo: <b>19731</b>								
Prep Date: <b>7/7/2014</b>	Analysis Date: <b>7/8/2014</b>	SeqNo: <b>573225</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	59	10	50.20	0	117	40.1	152	14.7	32.1	
Surr: DNOP	4.9		5.020		97.4	57.9	140	0	0	

Sample ID <b>LCS-14101</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>14101</b>	RunNo: <b>19731</b>								
Prep Date: <b>7/8/2014</b>	Analysis Date: <b>7/8/2014</b>	SeqNo: <b>573226</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: DNOP	4.0		5.000		80.6	57.9	140			
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Sample ID <b>MB-14101</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>14101</b>	RunNo: <b>19731</b>								
Prep Date: <b>7/8/2014</b>	Analysis Date: <b>7/8/2014</b>	SeqNo: <b>573302</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: DNOP	8.3		10.00		83.2	57.9	140			
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**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#: 1407156

10-Jul-14

**Client:** Blagg Engineering

**Project:** JFJ Landfarm

Sample ID <b>MB-14058</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>14058</b>		RunNo: <b>19711</b>							
Prep Date: <b>7/3/2014</b>	Analysis Date: <b>7/7/2014</b>		SeqNo: <b>572606</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.2	80	120			

Sample ID <b>LCS-14058</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>14058</b>		RunNo: <b>19711</b>							
Prep Date: <b>7/3/2014</b>	Analysis Date: <b>7/7/2014</b>		SeqNo: <b>572607</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	71.7	134			
Surr: BFB	1200		1000		120	80	120			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#: 1407156

10-Jul-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-14058</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>14058</b>	RunNo:	<b>19711</b>					
Prep Date:	<b>7/3/2014</b>	Analysis Date:	<b>7/7/2014</b>	SeqNo:	<b>572630</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	1.0		1.000		102	80	120			

Sample ID	<b>LCS-14058</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>14058</b>	RunNo:	<b>19711</b>					
Prep Date:	<b>7/3/2014</b>	Analysis Date:	<b>7/7/2014</b>	SeqNo:	<b>572631</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	105	80	120			
Toluene	0.99	0.050	1.000	0	99.0	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	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: **1407156**

RcptNo: **1**

Received by/date: AT 07/03/14

Logged By: **Anne Thorne** 7/3/2014 7:06:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 7/3/2014 *Anne Thorne*

Reviewed By: CS 07/03/14

**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? 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:	<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			



# ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Blagg Engineering, Inc.  Standard  Rush  
 Project Name: Industrial Ecosystems Inc.  
 Project #: JFJ Landfarm  
 Mailing Address: P.O. Box 87  
Bloomfield, NM 87413  
 Phone #: (505)320-1183

Project Manager: Jeff Blagg  
 QA/QC Package:  Standard  Level 4 (Full Validation)  
 Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Sampler: Jeff Blagg  
 On Ice:  Yes  No  
 Sample Temperature: 13  
 HEAL No. H07156

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	BTEX (8021)	TPH 8015B (GRO / DRO)	TPH 418.1	Chloride	Air Bubbles (Y or N)
06/30/2014	10:10	Soil	Cell 2G	4oz X 1	cool	X	X	X	X	
06/30/2014	10:30	Soil	Cell 3F	4oz X 1	cool	X	X	X	X	
06/30/2014	11:00	Soil	Cell 4E	4oz X 1	cool	X	X	X	X	
06/30/2014	9:00	Soil	Cell 7E	4oz X 1	cool	X	X	X	X	
06/30/2014	9:40	Soil	Cell 8A	4oz X 1	cool	X	X	X	X	
06/30/2014	8:40	Soil	Cell 9H	4oz X 1	cool	X	X	X	X	
06/30/2014	8:10	Soil	Cell 11H	4oz X 1	cool	X	X	X	X	
06/30/2014	7:45	Soil	Cell 12E	4oz X 1	cool	X	X	X	X	
06/30/2014	7:25	Soil	Cell 13E	4oz X 1	cool	X	X	X	X	

Received by: Jeff Blagg Date: 07/07/14  
 Relinquished by: Jeff Blagg Date: 07/07/14  
 Remarks: Bill JFJ email results to: marcella@industrialecosystems.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.

***BLAGG ENGINEERING, INC.***

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

RECEIVED  
MAY 15 2014

June 13, 2014

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2014 1<sup>st</sup> Quarterly Report on Treatment Zone Monitoring

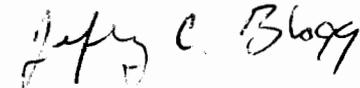
On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on March 31, 2014.

The facility permit describes annual cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B, and chlorides by Method 300.0. For this event samples were collected from active cell units 2h, 3g, 4h, 7h, 8g, 9e, 11e, 12c and 13c (see attached figure). There was no detection of hydrocarbons in any sample. Chloride, which is not required for testing pursuant to the facility permit, was non-detect at all sample points except 4h, which reported 95 mg/Kg.

Future testing of TPH at the facility will be conducted with U.S. EPA Method 418.1 as requesting in your correspondence dated April 10, 2014.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

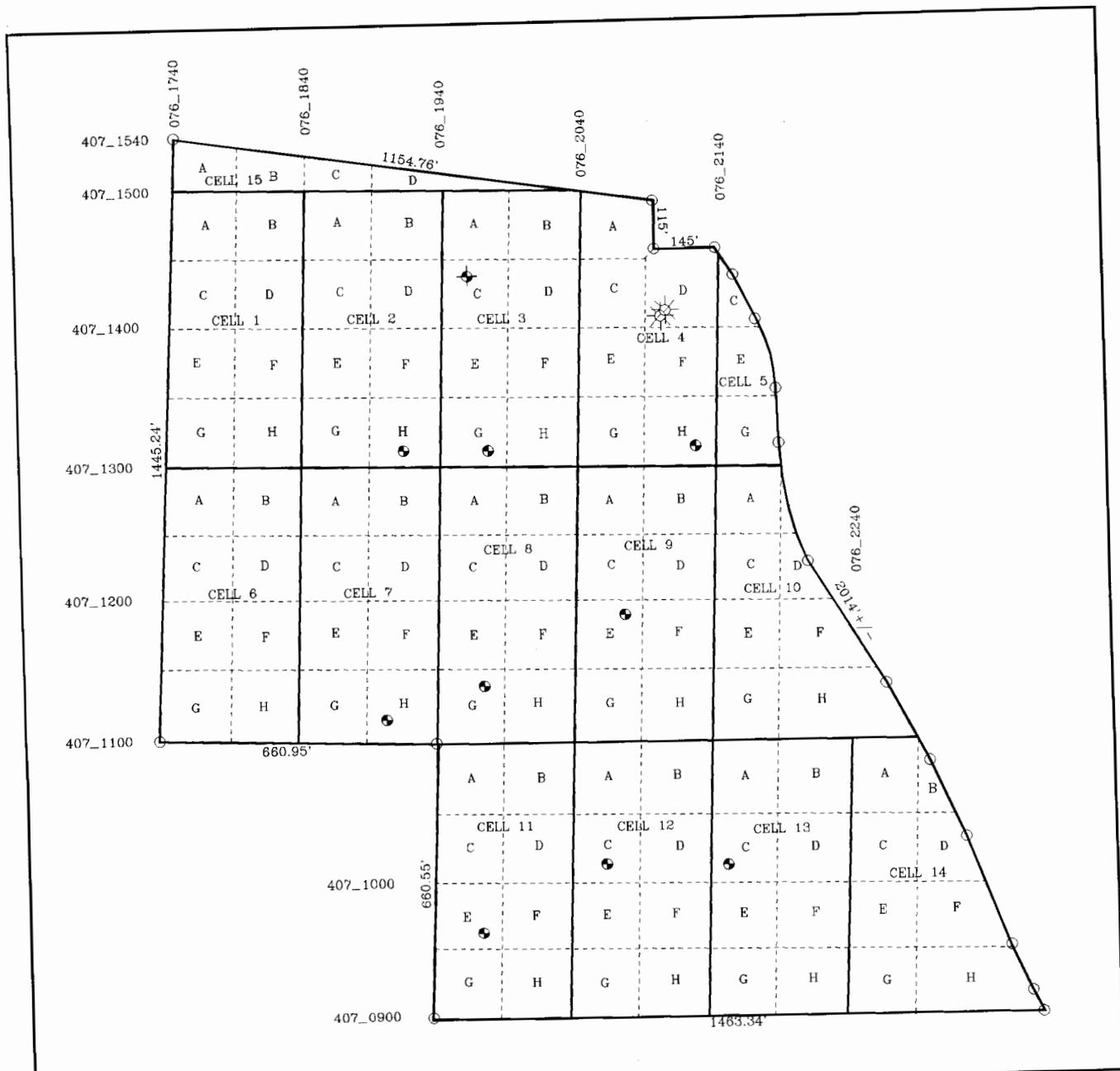
Respectfully submitted:  
***Blagg Engineering, Inc.***



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



LEGEND

- Active Gas Well
- PxA Gas Well
- Sample Point

N

0      500      1000 Feet

JFJ LANDFARM FACILITY			BLAGG ENGINEERING, INC.		
DATE: MAR 2014	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199		



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

April 09, 2014

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

RE: JFJ Landfarm

OrderNo.: 1404170

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/3/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

**Analytical Report**  
 Lab Order 1404170  
 Date Reported: 4/9/2014

**CLIENT:** Blagg Engineering

**Client Sample ID:** Cell 2H

**Project:** JFJ Landfarm

**Collection Date:** 3/31/2014 10:15:00 AM

**Lab ID:** 1404170-001

**Matrix:** SOIL

**Received Date:** 4/3/2014 10:30:00 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 12:44:07 PM	12535
Surr: DNOP	70.6	66-131		%REC	1	4/7/2014 12:44:07 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/4/2014 7:08:40 PM	12530
Surr: BFB	85.5	74.5-129		%REC	1	4/4/2014 7:08:40 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	4/4/2014 7:08:40 PM	12530
Toluene	ND	0.049		mg/Kg	1	4/4/2014 7:08:40 PM	12530
Ethylbenzene	ND	0.049		mg/Kg	1	4/4/2014 7:08:40 PM	12530
Xylenes, Total	ND	0.097		mg/Kg	1	4/4/2014 7:08:40 PM	12530
Surr: 4-Bromofluorobenzene	98.6	80-120		%REC	1	4/4/2014 7:08:40 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 4:54:57 PM	12566

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:** Cell 3G

**Project:** JFJ Landfarm

**Collection Date:** 3/31/2014 9:55:00 AM

**Lab ID:** 1404170-002

**Matrix:** SOIL

**Received Date:** 4/3/2014 10:30:00 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	4/7/2014 1:14:32 PM	12535
Surr: DNOP	73.9	66-131		%REC	1	4/7/2014 1:14:32 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/4/2014 7:37:22 PM	12530
Surr: BFB	84.4	74.5-129		%REC	1	4/4/2014 7:37:22 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	4/4/2014 7:37:22 PM	12530
Toluene	ND	0.050		mg/Kg	1	4/4/2014 7:37:22 PM	12530
Ethylbenzene	ND	0.050		mg/Kg	1	4/4/2014 7:37:22 PM	12530
Xylenes, Total	ND	0.099		mg/Kg	1	4/4/2014 7:37:22 PM	12530
Surr: 4-Bromofluorobenzene	98.6	80-120		%REC	1	4/4/2014 7:37:22 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 5:07:23 PM	12566

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  
**Project:** JFJ Landfarm  
**Lab ID:** 1404170-003

**Matrix:** SOIL

**Client Sample ID:** Cell 4H  
**Collection Date:** 3/31/2014 9:34:00 AM  
**Received Date:** 4/3/2014 10:30:00 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 1:45:20 PM	12535
Surr: DNOP	81.3	66-131		%REC	1	4/7/2014 1:45:20 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/4/2014 8:05:58 PM	12530
Surr: BFB	84.6	74.5-129		%REC	1	4/4/2014 8:05:58 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/4/2014 8:05:58 PM	12530
Toluene	ND	0.047		mg/Kg	1	4/4/2014 8:05:58 PM	12530
Ethylbenzene	ND	0.047		mg/Kg	1	4/4/2014 8:05:58 PM	12530
Xylenes, Total	ND	0.095		mg/Kg	1	4/4/2014 8:05:58 PM	12530
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	4/4/2014 8:05:58 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	95	30		mg/Kg	20	4/7/2014 5:19:47 PM	12566

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 3 of 13
	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.

Analytical Report  
 Lab Order 1404170  
 Date Reported: 4/9/2014

CLIENT: Blagg Engineering

Client Sample ID: Cell 7H

Project: JFJ Landfarm

Collection Date: 3/31/2014 8:55:00 AM

Lab ID: 1404170-004

Matrix: SOIL

Received Date: 4/3/2014 10:30:00 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	4/7/2014 2:16:00 PM	12535
Surr: DNOP	75.6	66-131		%REC	1	4/7/2014 2:16:00 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/4/2014 8:34:37 PM	12530
Surr: BFB	86.7	74.5-129		%REC	1	4/4/2014 8:34:37 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	4/4/2014 8:34:37 PM	12530
Toluene	ND	0.048		mg/Kg	1	4/4/2014 8:34:37 PM	12530
Ethylbenzene	ND	0.048		mg/Kg	1	4/4/2014 8:34:37 PM	12530
Xylenes, Total	ND	0.097		mg/Kg	1	4/4/2014 8:34:37 PM	12530
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	4/4/2014 8:34:37 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 5:32:12 PM	12566

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  
 Project: JFJ Landfarm  
 Lab ID: 1404170-005

Client Sample ID: Cell 8G  
 Collection Date: 3/31/2014 9:08:00 AM  
 Received Date: 4/3/2014 10:30:00 AM

Matrix: SOIL

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	4/7/2014 2:46:33 PM	12535
Surr: DNOP	74.1	66-131		%REC	1	4/7/2014 2:46:33 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/4/2014 9:03:12 PM	12530
Surr: BFB	87.8	74.5-129		%REC	1	4/4/2014 9:03:12 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/4/2014 9:03:12 PM	12530
Toluene	ND	0.047		mg/Kg	1	4/4/2014 9:03:12 PM	12530
Ethylbenzene	ND	0.047		mg/Kg	1	4/4/2014 9:03:12 PM	12530
Xylenes, Total	ND	0.095		mg/Kg	1	4/4/2014 9:03:12 PM	12530
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	4/4/2014 9:03:12 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 5:44:37 PM	12566

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.**

**Analytical Report**  
 Lab Order **1404170**  
 Date Reported: **4/9/2014**

**CLIENT:** Blagg Engineering  
**Project:** JFJ Landfarm  
**Lab ID:** 1404170-006

**Client Sample ID:** Cell 9E  
**Collection Date:** 3/31/2014 9:17:00 AM  
**Received Date:** 4/3/2014 10:30:00 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	4/7/2014 3:17:17 PM	12535
Surr: DNOP	73.8	66-131		%REC	1	4/7/2014 3:17:17 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/4/2014 9:31:48 PM	12530
Surr: BFB	87.4	74.5-129		%REC	1	4/4/2014 9:31:48 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	4/4/2014 9:31:48 PM	12530
Toluene	ND	0.049		mg/Kg	1	4/4/2014 9:31:48 PM	12530
Ethylbenzene	ND	0.049		mg/Kg	1	4/4/2014 9:31:48 PM	12530
Xylenes, Total	ND	0.097		mg/Kg	1	4/4/2014 9:31:48 PM	12530
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/4/2014 9:31:48 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 5:57:02 PM	12566

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	Page 6 of 13
	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 **1404170**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** Cell 12C**Project:** JFJ Landfarm**Collection Date:** 3/31/2014 8:25:00 AM**Lab ID:** 1404170-008**Matrix:** SOIL**Received Date:** 4/3/2014 10:30:00 AM

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2014 4:49:34 PM	12535
Surr: DNOP	72.4	66-131		%REC	1	4/7/2014 4:49:34 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/4/2014 10:28:56 PM	12530
Surr: BFB	84.4	74.5-129		%REC	1	4/4/2014 10:28:56 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/4/2014 10:28:56 PM	12530
Toluene	ND	0.047		mg/Kg	1	4/4/2014 10:28:56 PM	12530
Ethylbenzene	ND	0.047		mg/Kg	1	4/4/2014 10:28:56 PM	12530
Xylenes, Total	ND	0.094		mg/Kg	1	4/4/2014 10:28:56 PM	12530
Surr: 4-Bromofluorobenzene	98.3	80-120		%REC	1	4/4/2014 10:28:56 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 6:21:51 PM	12566

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	Page 8 of 13
	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 1404170

Date Reported: 4/9/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** Cell 13C**Project:** JFJ Landfarm**Collection Date:** 3/31/2014 8:10:00 AM**Lab ID:** 1404170-009**Matrix:** SOIL**Received Date:** 4/3/2014 10:30:00 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 5:20:19 PM	12535
Surr: DNOP	73.5	66-131		%REC	1	4/7/2014 5:20:19 PM	12535
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/4/2014 10:57:27 PM	12530
Surr: BFB	87.0	74.5-129		%REC	1	4/4/2014 10:57:27 PM	12530
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/4/2014 10:57:27 PM	12530
Toluene	ND	0.047		mg/Kg	1	4/4/2014 10:57:27 PM	12530
Ethylbenzene	ND	0.047		mg/Kg	1	4/4/2014 10:57:27 PM	12530
Xylenes, Total	ND	0.094		mg/Kg	1	4/4/2014 10:57:27 PM	12530
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/4/2014 10:57:27 PM	12530
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	4/7/2014 6:34:15 PM	12566

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#: 1404170

09-Apr-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-12566	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12566	RunNo:	17852					
Prep Date:	4/7/2014	Analysis Date:	4/7/2014	SeqNo:	514796	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	1.5								
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Sample ID	LCS-12566	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12566	RunNo:	17852					
Prep Date:	4/7/2014	Analysis Date:	4/7/2014	SeqNo:	514797	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			
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## 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#: 1404170

09-Apr-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-12535</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12535</b>	RunNo:	<b>17817</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/7/2014</b>	SeqNo:	<b>514212</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.3		10.00		72.6	66	131			

Sample ID	<b>LCS-12535</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12535</b>	RunNo:	<b>17817</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/7/2014</b>	SeqNo:	<b>514213</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.9	60.8	145			
Surr: DNOP	3.6		5.000		73.0	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#: 1404170

09-Apr-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17799</b>	RunNo:	<b>17799</b>					
Prep Date:		Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513541</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.2	74.5	129			

Sample ID	<b>2.5UG GRO LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17799</b>	RunNo:	<b>17799</b>					
Prep Date:		Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513542</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		109	74.5	129			

Sample ID	<b>MB-12530</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12530</b>	RunNo:	<b>17816</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513588</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.7	74.5	129			

Sample ID	<b>LCS-12530</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12530</b>	RunNo:	<b>17816</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513589</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	71.7	134			
Surr: BFB	930		1000		93.2	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#: 1404170

09-Apr-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R17799</b>	RunNo:	<b>17799</b>					
Prep Date:		Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513564</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R17799</b>	RunNo:	<b>17799</b>					
Prep Date:		Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513565</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.71		1.000		71.0	80	120			S

Sample ID	<b>MB-12530</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>12530</b>	RunNo:	<b>17816</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513622</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	1.0		1.000		102	80	120			

Sample ID	<b>LCS-12530</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>12530</b>	RunNo:	<b>17816</b>					
Prep Date:	<b>4/3/2014</b>	Analysis Date:	<b>4/4/2014</b>	SeqNo:	<b>513623</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	0.99	0.050	1.000	0	99.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: **BLAGG**

Work Order Number: **1404170**

RcptNo: **1**

Received by/date: Sm 04/03/14

Logged By: **Michelle Garcia** 4/3/2014 10:30:00 AM *Michelle Garcia*

Completed By: **Michelle Garcia** 4/3/2014 12:02:15 PM *Michelle Garcia*

Reviewed By: [Signature] 04/03/14

**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	1.8	Good	Yes			

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

Analysis Request

Client: **Blagg Engineering, Inc.**  Standard  Rush  
Project Name: **Industrial Ecosystems Inc.**  
Project #: **JFJ Landfarm**

Project #: **Bloomfield, NM 87413**

Phone #: **(505)320-1183**

email or Fax#: \_\_\_\_\_

QA/QC Package:  Standard  Level 4 (Full Validation)  
 Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Project Manager: **Jeff Blagg**

Sampler: **Jeff Blagg**

On Ice:  Yes  No

Sample Temperature: **1.5**

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)
03/31/2014	10:15	Soil	Cell 2H	4oz x 1	cool	1404170	x	x	x	
03/31/2014	9:55	Soil	Cell 3G	4oz x 1	cool	002	x	x	x	
03/31/2014	9:34	Soil	Cell 4H	4oz x 1	cool	003	x	x	x	
03/31/2014	8:55	Soil	Cell 7H	4oz x 1	cool	004	x	x	x	
03/31/2014	9:08	Soil	Cell 8G	4oz x 1	cool	005	x	x	x	
03/31/2014	9:17	Soil	Cell 9E	4oz x 1	cool	006	x	x	x	
03/31/2014	8:40	Soil	Cell 11E	4oz x 1	cool	007	x	x	x	
03/31/2014	8:25	Soil	Cell 12C	4oz x 1	cool	008	x	x	x	
03/31/2014	8:10	Soil	Cell 13C	4oz x 1	cool	009	x	x	x	

Date: **4/2/2014** Time: **1437** Relinequished by: **Jeff Blagg**

Date: **4/2/14** Time: **1749** Relinequished by: **Christa Walker**

Received by: **Christa Walker** Date: **4/2/2014** Time: **1437**

Received by: **[Signature]** Date: **04/03/14** Time: **1030**

Remarks: Bill JFJ  
email results to:  
marcella@industrialecosystems.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.

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



April 10, 2014

Ms. Marcella Marquez  
JFJ Landfarm, L.L.C.  
Industrial Ecosystems Inc.  
Soil Reclamation Center  
P.O. Box 2043  
Farmington, New Mexico 87499

**RE: 2013 Quarterly Vadose Zone Monitoring Reports Review  
JFJ Landfarm, LLC - Industrial Ecosystems Inc.  
JFJ Landfarm – Permit # NM1-010-B  
Location: NW/4 SE/4 of Section 2, Township 29 North, Range 12 West, NMPM,  
San Juan County, New Mexico**

Dear Ms. Marquez:

The Oil Conservation Division (OCD) has completed the review of JFJ Landfarm, LLC's (JFJ) 2013 1<sup>st</sup> Quarterly Vadose Zone Monitoring Report, dated April 26, 2013, 2013 2<sup>nd</sup> Quarterly Vadose Zone Monitoring Report, dated August 6, 2013, 2013 3<sup>rd</sup> Quarterly Vadose Zone Monitoring Report, dated November 14, 2013, and 2013 4<sup>th</sup> Quarterly Vadose Zone Monitoring Report, dated March 17 2014. The vadose zone results were not compared to the background results or PQL (whichever is higher) in order to determine if a release had occurred and if additional follow-up actions are required to be completed. All four quarterly monitoring reports demonstrate a downward migration of TPH, Chloride, and Xylene contamination approximately three feet into the vadose zone. The five year vadose sampling event has not been implemented and demonstrated. Also, the incorrect test method for TPH was utilized and demonstrated in regards to vadose zone monitoring.

Pursuant to Paragraph (5) of 19.15.36.15.E NMAC, "If vadose zone sampling results show that the concentrations of TPH, BTEX or chlorides exceed the higher of the PQL or the background soil concentrations, then the operator shall notify the division's environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division's approval within 45 days of the initial notification. The response action plan shall address changes in the landfarm's operation to prevent further contamination and, if necessary, a plan for remediating existing contamination." The 2013 1<sup>st</sup> Quarterly Vadose Zone Monitoring Report demonstrated TPH contamination in Cells 9B and 4G

and high Chlorides (360 mg/kg when all other cells were less than 7.5 mg/kg) in Cell 7C. The 2013 2<sup>nd</sup> Quarterly Vadose Zone Monitoring Report demonstrated TPH contamination and high Chlorides in Cell 7G, Xylene contamination in Cell 9A, TPH and Xylene contamination in Cell 11D, and TPH contamination in Cell 12C. The 2013 3<sup>rd</sup> Quarterly Vadose Zone Monitoring Report demonstrated TPH contamination Cells 7H and 9B. The 2013 4<sup>th</sup> Quarterly Vadose Zone Monitoring Report demonstrated high Chlorides (1500 mg/kg and 110 mg/kg for a resample when the other eight cells were less than 1.5 mg/kg) in Cell 9C. OCD was not notified of the exceedances, the required additional sampling was not performed, and OCD did not receive the required response action plan to address the confirmed contamination. Please complete the requirements of Paragraph (5) of 19.15.36.15.E NMAC.

In accordance with Paragraph (1) of 19.15.36.15.E NMAC, “The operator shall monitor the vadose zone beneath the treatment zone in each landfarm cell.” Pursuant to Paragraph (3) of 19.15.36.15.E NMAC, “The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the POL or the background soil concentrations to determine whether a release has occurred.” OCD has reviewed the administrative file and has been unable to locate the five year vadose sampling demonstration. Part 36 became effective February 14, 2007. The five year sampling event is due, please provide. As underlined in the above reference of Paragraph (1) of 19.15.36.15.E NMAC, the “methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC” are those identified in Subsection F of 19.15.36.15 NMAC: such as “determined by EPA SW-846 methods 6010B or 6020 or other EPA method approved by the division...” Please perform the five year monitoring program on all of the active landfarm cells and submit all future sampling results demonstrating compliance of Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020.

In regards to utilizing the proper TPH test method for vadose zone monitoring, in accordance with Paragraph (2) of 19.15.36.15.E NMAC the operator shall analyze the samples from the vadose zone “using the methods specified below for TPH, BTEX and chlorides and shall compare each result to the higher of the POL or the background soil concentrations to determine whether a release has occurred.” The “methods specified below for TPH, BTEX and chlorides” are those identified in Subsection F of 19.15.36.15 NMAC: such as “TPH, as determined by EPA method 418.1 or other EPA method approved by the division...” Pursuant to the Transitional Provisions of Subsection A of 19.15.36.20.NMAC, “Existing surface waste management facilities shall comply with the operational, waste acceptance and closure requirements provided in 19.15.36 NMAC, except as otherwise specifically provided in the applicable permit or order, or in a specific waiver, exception or agreement that the division has granted in writing to the particular surface waste management facility.” The most common vadose zone monitoring (commonly referred to, but incorrectly as “Treatment Zone Monitoring” within existing landfarm permits) condition in an existing landfarm permit is as follows: “The soil samples must be analyzed using EPA-approved methods for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly and for major cations/anions and Water Quality Control Commission (WQCC) metals annually.” The permit condition only identified the constituent and does not specify the test method. Part 36 specifies EPA Method 418.1 as the

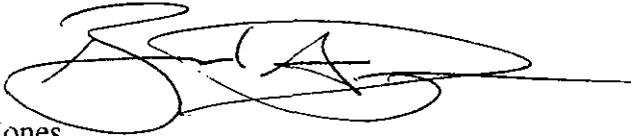
Ms. Marquez  
JFJ Landfarm, LLC  
Permit NM1-010-B  
April 10, 2014  
Page 3 of 3

required vadose zone analyses for TPH. Please submit all future vadose zone sampling results demonstrating TPH by EPA Method 418.1.

The 2013 Quarterly Vadose Zone Monitoring Reports only includes a brief written summary and the laboratory results from the sampling events. The requirements of Subsection E of 19.15.36.15 NMAC are clear that the operator "shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred." The rest of the vadose zone assessment was not completed to determine if a release has occurred and/or if the required additional testing and a response action plan of Paragraph (5) of 19.15.36.15.E NMAC are required. Please complete the required assessment.

Please complete the required actions of 19.15.36.15.E NMAC by performing the required additional sampling and provide OCD with the sampling results compared to background or PQL and a response action plan within 120 days of receipt of this letter. Please perform the five year monitoring program on all of the active landfarm cells. Please submit future vadose zone sampling results demonstrating TPH by EPA Method 418.1 and compliance to Paragraph (3) of 19.15.36.15.E NMAC by EPA SW-846 methods 6010B or 6020. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec  
Jeffrey Blagg, Blagg Engineering, Inc., PO Box 87, Bloomfield, NM 87413

**BLAGG ENGINEERING, INC.**  
P.O. Box 87, Bloomfield, New Mexico 87413  
Phone: (505)632-1199 Fax: (505)632-3903

RECEIVED OGD

2014 MAR 18 A 2:32

March 17, 2014

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

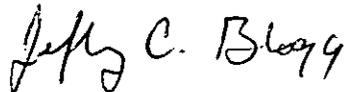
Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2013 4<sup>th</sup> Quarterly Report on Treatment Zone Monitoring

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the annual sample event conducted on December 26, 2013.

The facility permit describes annual cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B, cation/anion balance and RCRA metals. For this event samples were collected from active cell units 2e, 3f, 4a, 7a, 8a, 9c, 11h, 12g and 13g (see attached figure). All sample points were within permit limits for TPH and BTEX. Except for sample point 9c, chlorides tested below 100 ppm at all sites but cell 9c reported 1,500 mg/kg chloride. On February 26, 2014 the exact collection point for 9c was re-sampled (note that dense sandstone is present at about 2.5 feet below grade in this area of the landfarm) at a depth approximated 3-inches deeper for laboratory re-testing of chlorides. The chloride re-test reported 110 mg/kg. Based on this result, the earlier chloride result is believed to be an anomaly.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

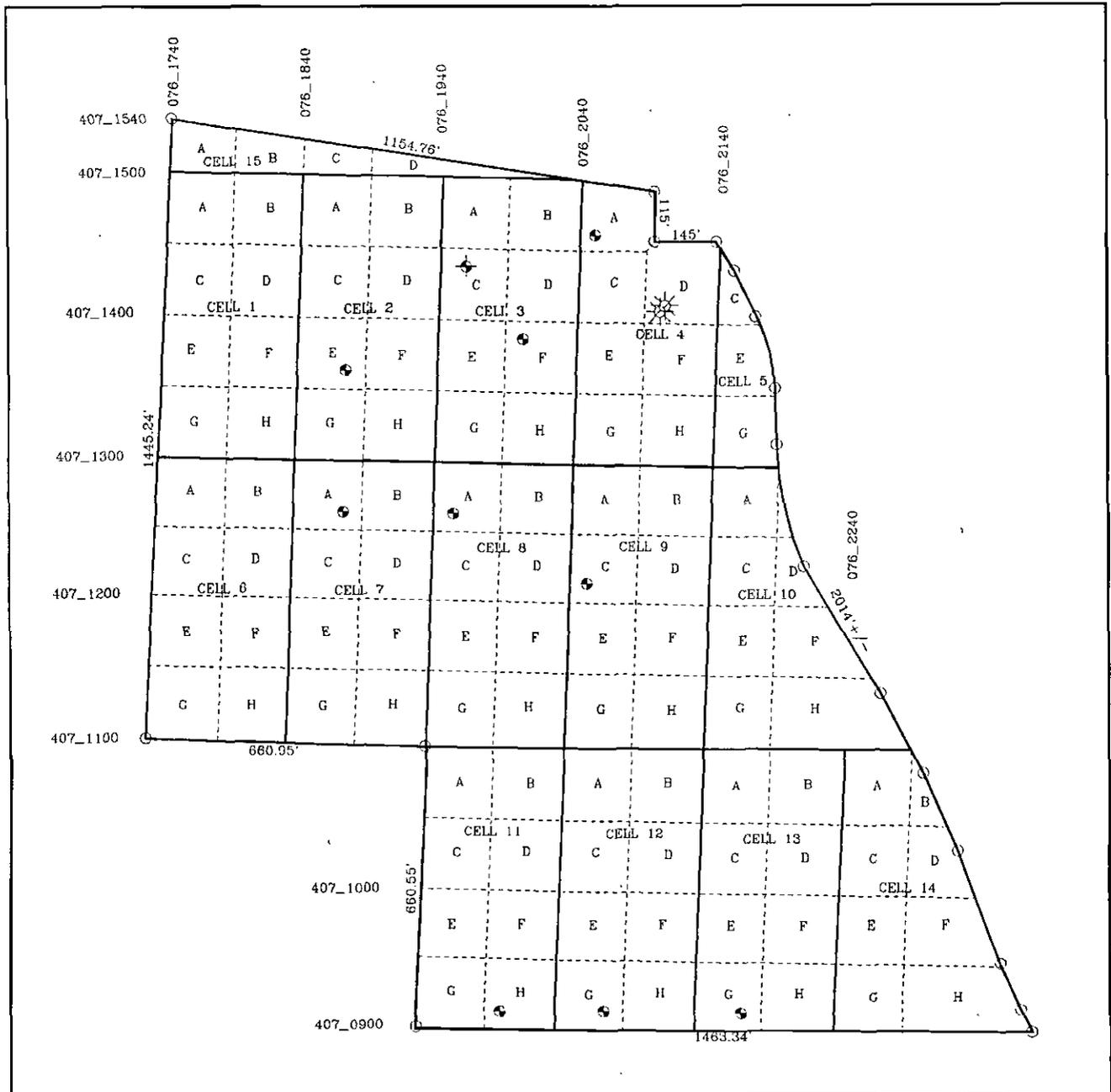
Respectfully submitted:  
**Blagg Engineering, Inc.**



Jeffrey C. Blagg, P.E.  
President

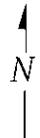
Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington

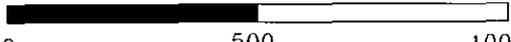


LEGEND

-  Active Gas Well
-  PxA Gas Well
-  Sample Point



N



0                      500                      1000 Feet

JFJ LANDFARM FACILITY		BLAGG ENGINEERING, INC.	
DATE: DEC 2013	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199



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

January 14, 2014

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

RE: JFJ Landfarm

OrderNo.: 1312B93

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/27/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Client: Blagg Engineering, Inc.

JFJ Landfarm

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

Project Name: JFJ Landfarm

Project #:

Project Manager: Jeff Blagg

Sampler: Jeff Blagg

On Ice:  Yes       No

Sample Temperature: 5.7



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

**Analysis Request**

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	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)	Cations/Anions	Air Pollutants (V or N)
12/26/2013	10:55 AM	Soil	Cell 3F	2x4oz	Cool	1312B93 -001	x	x				x					x	
12/26/2013	11:07 AM	Soil	Cell 4A	2x4oz	Cool	-002	x	x				x					x	
12/26/2013	11:20 AM	Soil	Cell 2E	2x4oz	Cool	-003	x	x				x					x	
12/26/2013	11:30 AM	Soil	Cell 7A	2x4oz	Cool	-004	x	x				x					x	
12/26/2013	11:40 AM	Soil	Cell 8A	2x4oz	Cool	-005	x	x				x					x	
12/26/2013	12:05 PM	Soil	Cell 9C	2x4oz	Cool	-006	x	x				x					x	
12/26/2013	12:20 PM	Soil	Cell 13G	2x4oz	Cool	-007	x	x				x					x	
12/26/2013	12:35 PM	Soil	Cell 12G	2x4oz	Cool	-008	x	x				x					x	
12/26/2013	12:45 PM	Soil	Cell 11H	2x4oz	Cool	-009	x	x				x					x	

Date: 12/27/13      Time: 0615      Relinquished by: Jeff Blagg

Received by: [Signature]      Date: 12/27/13      Time: 1000

Remarks: Bill Blagg

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 noted on the analytical report.

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 3F

Project: JFJ Landfarm

Collection Date: 12/26/2013 10:55:00 AM

Lab ID: 1312B93-001

Matrix: SOIL

Received Date: 12/27/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2013 1:40:23 PM	10990
Surr: DNOP	107	66-131		%REC	1	12/30/2013 1:40:23 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2013 2:31:42 PM	11012
Surr: BFB	90.9	74.5-129		%REC	1	12/30/2013 2:31:42 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	12/30/2013 2:31:42 PM	11012
Toluene	ND	0.048		mg/Kg	1	12/30/2013 2:31:42 PM	11012
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2013 2:31:42 PM	11012
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2013 2:31:42 PM	11012
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	12/30/2013 2:31:42 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	8.5	0.30		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 1:14:08 PM	11037
Sulfate	1100	30		mg/Kg	20	12/31/2013 1:51:22 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: JML
Mercury	ND	0.032		mg/Kg	1	1/7/2014 3:52:27 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Barium	4.2	0.10		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Cadmium	ND	0.10		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Calcium	1500	25		mg/Kg	1	1/9/2014 4:54:23 PM	11125
Chromium	2.0	0.30		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Lead	1.8	0.25		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Magnesium	1500	25		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Potassium	340	50		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:43:41 PM	11125
Sodium	75	25		mg/Kg	1	1/9/2014 1:43:41 PM	11125

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

Qualifiers: \* Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 O RSD is greater than RSDlimit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 P Sample pH greater than 2 for VOA and TOC only.  
 RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 4A

Project: JFJ Landfarm

Collection Date: 12/26/2013 11:07:00 AM

Lab ID: 1312B93-002

Matrix: SOIL

Received Date: 12/27/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/30/2013 2:11:33 PM	10990
Surr: DNOP	133	66-131	S	%REC	1	12/30/2013 2:11:33 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/30/2013 3:00:22 PM	11012
Surr: BFB	92.5	74.5-129		%REC	1	12/30/2013 3:00:22 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	12/30/2013 3:00:22 PM	11012
Toluene	ND	0.046		mg/Kg	1	12/30/2013 3:00:22 PM	11012
Ethylbenzene	ND	0.046		mg/Kg	1	12/30/2013 3:00:22 PM	11012
Xylenes, Total	ND	0.093		mg/Kg	1	12/30/2013 3:00:22 PM	11012
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	12/30/2013 3:00:22 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	1.4	0.30		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Nitrogen, Nitrate (As N)	0.33	0.30		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 2:03:47 PM	11037
Sulfate	2400	30		mg/Kg	20	12/31/2013 2:16:12 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: JML
Mercury	ND	0.033		mg/Kg	1	1/7/2014 3:54:13 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Barium	5.4	0.099		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Cadmium	ND	0.099		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Calcium	2600	25		mg/Kg	1	1/9/2014 4:55:34 PM	11125
Chromium	1.2	0.30		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Lead	2.8	0.25		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Magnesium	600	25		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Potassium	360	50		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:45:01 PM	11125
Sodium	69	25		mg/Kg	1	1/9/2014 1:45:01 PM	11125

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 2E

Project: JFJ Landfarm

Collection Date: 12/26/2013 11:20:00 AM

Lab ID: 1312B93-003

Matrix: SOIL

Received Date: 12/27/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2013 2:42:43 PM	10990
Surr: DNOP	111	66-131		%REC	1	12/30/2013 2:42:43 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/30/2013 3:29:02 PM	11012
Surr: BFB	93.5	74.5-129		%REC	1	12/30/2013 3:29:02 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	12/30/2013 3:29:02 PM	11012
Toluene	ND	0.047		mg/Kg	1	12/30/2013 3:29:02 PM	11012
Ethylbenzene	ND	0.047		mg/Kg	1	12/30/2013 3:29:02 PM	11012
Xylenes, Total	ND	0.094		mg/Kg	1	12/30/2013 3:29:02 PM	11012
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	12/30/2013 3:29:02 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	0.37	0.30		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Nitrogen, Nitrate (As N)	0.51	0.30		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 2:53:26 PM	11037
Sulfate	3.1	1.5		mg/Kg	1	12/31/2013 2:53:26 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: JML
Mercury	ND	0.032		mg/Kg	1	1/7/2014 3:55:59 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: JLF
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Barium	110	0.099		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Cadmium	ND	0.099		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Calcium	4500	25		mg/Kg	1	1/9/2014 4:56:42 PM	11125
Chromium	1.2	0.30		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Lead	2.7	0.25		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Magnesium	1100	25		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Potassium	460	50		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:46:24 PM	11125
Sodium	ND	25		mg/Kg	1	1/9/2014 1:46:24 PM	11125

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 7A

Project: JFJ Landfarm

Collection Date: 12/26/2013 11:30:00 AM

Lab ID: 1312B93-004

Matrix: SOIL

Received Date: 12/27/2013 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	12/30/2013 3:45:08 PM	10990
Surr: DNOP	121	66-131		%REC	1	12/30/2013 3:45:08 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2013 3:57:37 PM	11012
Surr: BFB	88.2	74.5-129		%REC	1	12/30/2013 3:57:37 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	12/30/2013 3:57:37 PM	11012
Toluene	ND	0.049		mg/Kg	1	12/30/2013 3:57:37 PM	11012
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2013 3:57:37 PM	11012
Xylenes, Total	ND	0.099		mg/Kg	1	12/30/2013 3:57:37 PM	11012
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	12/30/2013 3:57:37 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	ND	0.30		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Nitrogen, Nitrate (As N)	0.45	0.30		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 3:18:15 PM	11037
Sulfate	2.3	1.5		mg/Kg	1	12/31/2013 3:18:15 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>JML</b>
Mercury	ND	0.033		mg/Kg	1	1/7/2014 3:57:46 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Barium	190	0.099		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Cadmium	ND	0.099		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Calcium	1600	25		mg/Kg	1	1/9/2014 4:57:50 PM	11125
Chromium	0.96	0.30		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Lead	2.1	0.25		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Magnesium	910	25		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Potassium	370	50		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:47:51 PM	11125
Sodium	ND	25		mg/Kg	1	1/9/2014 1:47:51 PM	11125

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Analytical Report**

Lab Order 1312B93

Date Reported: 1/14/2014

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 8A

Project: JFJ Landfarm

Collection Date: 12/26/2013 11:40:00 AM

Lab ID: 1312B93-005

Matrix: SOIL

Received Date: 12/27/2013 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	12/30/2013 4:16:19 PM	10990
Surr: DNOP	85.3	66-131		%REC	1	12/30/2013 4:16:19 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2013 4:26:14 PM	11012
Surr: BFB	90.6	74.5-129		%REC	1	12/30/2013 4:26:14 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	12/30/2013 4:26:14 PM	11012
Toluene	ND	0.048		mg/Kg	1	12/30/2013 4:26:14 PM	11012
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2013 4:26:14 PM	11012
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2013 4:26:14 PM	11012
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	12/30/2013 4:26:14 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	11	0.30		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Chloride	18	1.5		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 3:43:04 PM	11037
Sulfate	160	30		mg/Kg	20	12/31/2013 3:55:29 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>JML</b>
Mercury	ND	0.033		mg/Kg	1	1/7/2014 3:59:32 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Barium	25	0.099		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Cadmium	ND	0.099		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Calcium	6100	120		mg/Kg	5	1/9/2014 4:58:58 PM	11125
Chromium	4.9	0.30		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Lead	5.1	0.25		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Magnesium	2400	25		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Potassium	1000	50		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:49:18 PM	11125
Sodium	450	25		mg/Kg	1	1/9/2014 1:49:18 PM	11125

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.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 9C

Project: JFJ Landfarm

Collection Date: 12/26/2013 12:05:00 PM

Lab ID: 1312B93-006

Matrix: SOIL

Received Date: 12/27/2013 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	12/30/2013 4:47:15 PM	10990
Surr: DNOP	106	66-131		%REC	1	12/30/2013 4:47:15 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/30/2013 4:54:47 PM	11012
Surr: BFB	89.6	74.5-129		%REC	1	12/30/2013 4:54:47 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	12/30/2013 4:54:47 PM	11012
Toluene	ND	0.050		mg/Kg	1	12/30/2013 4:54:47 PM	11012
Ethylbenzene	ND	0.050		mg/Kg	1	12/30/2013 4:54:47 PM	11012
Xylenes, Total	ND	0.099		mg/Kg	1	12/30/2013 4:54:47 PM	11012
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	12/30/2013 4:54:47 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	17	6.0		mg/Kg	20	12/31/2013 4:20:18 PM	11037
Chloride	1500	75		mg/Kg	50	1/2/2014 2:34:33 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 4:07:53 PM	11037
Bromide	23	0.30		mg/Kg	1	12/31/2013 4:07:53 PM	11037
Nitrogen, Nitrate (As N)	4.7	0.30		mg/Kg	1	12/31/2013 4:07:53 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 4:07:53 PM	11037
Sulfate	760	30		mg/Kg	20	12/31/2013 4:20:18 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>JML</b>
Mercury	ND	0.033		mg/Kg	1	1/7/2014 4:01:19 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	4.9	2.5		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Barium	220	0.099		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Cadmium	ND	0.099		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Calcium	41000	250		mg/Kg	10	1/9/2014 5:00:08 PM	11125
Chromium	8.4	0.30		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Lead	2.4	0.25		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Magnesium	7400	250		mg/Kg	10	1/9/2014 2:43:35 PM	11125
Potassium	2200	50		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:50:53 PM	11125
Sodium	1300	25		mg/Kg	1	1/9/2014 1:50:53 PM	11125

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 13G

Project: JFJ Landfarm

Collection Date: 12/26/2013 12:20:00 PM

Lab ID: 1312B93-007

Matrix: SOIL

Received Date: 12/27/2013 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	12/30/2013 5:18:01 PM	10990
Surr: DNOP	121	66-131		%REC	1	12/30/2013 5:18:01 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/30/2013 5:52:10 PM	11012
Surr: BFB	87.2	74.5-129		%REC	1	12/30/2013 5:52:10 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	12/30/2013 5:52:10 PM	11012
Toluene	ND	0.047		mg/Kg	1	12/30/2013 5:52:10 PM	11012
Ethylbenzene	ND	0.047		mg/Kg	1	12/30/2013 5:52:10 PM	11012
Xylenes, Total	ND	0.093		mg/Kg	1	12/30/2013 5:52:10 PM	11012
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	12/30/2013 5:52:10 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	0.55	0.30		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Nitrogen, Nitrate (As N)	0.47	0.30		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 4:32:43 PM	11037
Sulfate	4300	75		mg/Kg	50	1/2/2014 2:46:58 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>JML</b>
Mercury	ND	0.032		mg/Kg	1	1/7/2014 4:03:07 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.4		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Barium	4.0	0.098		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Cadmium	ND	0.098		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Calcium	20000	120		mg/Kg	5	1/9/2014 5:01:32 PM	11125
Chromium	1.7	0.29		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Lead	1.9	0.24		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Magnesium	810	24		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Potassium	360	49		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Selenium	ND	2.4		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Silver	ND	0.24		mg/Kg	1	1/9/2014 1:52:21 PM	11125
Sodium	ND	24		mg/Kg	1	1/9/2014 1:52:21 PM	11125

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.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 12G

Project: JFJ Landfarm

Collection Date: 12/26/2013 12:35:00 PM

Lab ID: 1312B93-008

Matrix: SOIL

Received Date: 12/27/2013 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	12/30/2013 5:49:08 PM	10990
Surr: DNOP	158	66-131	S	%REC	1	12/30/2013 5:49:08 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/30/2013 6:20:48 PM	11012
Surr: BFB	90.2	74.5-129		%REC	1	12/30/2013 6:20:48 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	12/30/2013 6:20:48 PM	11012
Toluene	ND	0.049		mg/Kg	1	12/30/2013 6:20:48 PM	11012
Ethylbenzene	ND	0.049		mg/Kg	1	12/30/2013 6:20:48 PM	11012
Xylenes, Total	ND	0.099		mg/Kg	1	12/30/2013 6:20:48 PM	11012
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	12/30/2013 6:20:48 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	8.7	0.30		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 5:22:20 PM	11037
Sulfate	620	30		mg/Kg	20	12/31/2013 5:34:45 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: <b>JML</b>
Mercury	ND	0.033		mg/Kg	1	1/7/2014 4:04:54 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: <b>JLF</b>
Arsenic	ND	2.5		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Barium	4.1	0.098		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Cadmium	ND	0.098		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Calcium	1800	25		mg/Kg	1	1/9/2014 5:02:49 PM	11125
Chromium	2.0	0.29		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Lead	1.5	0.25		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Magnesium	1400	25		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Potassium	300	49		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Selenium	ND	2.5		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Silver	ND	0.25		mg/Kg	1	1/9/2014 1:53:49 PM	11125
Sodium	49	25		mg/Kg	1	1/9/2014 1:53:49 PM	11125

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.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Cell 11H

Project: JFJ Landfarm

Collection Date: 12/26/2013 12:45:00 PM

Lab ID: 1312B93-009

Matrix: SOIL

Received Date: 12/27/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2013 6:19:53 PM	10990
Surr: DNOP	134	66-131	S	%REC	1	12/30/2013 6:19:53 PM	10990
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/30/2013 6:49:26 PM	11012
Surr: BFB	88.4	74.5-129		%REC	1	12/30/2013 6:49:26 PM	11012
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	12/30/2013 6:49:26 PM	11012
Toluene	ND	0.048		mg/Kg	1	12/30/2013 6:49:26 PM	11012
Ethylbenzene	ND	0.048		mg/Kg	1	12/30/2013 6:49:26 PM	11012
Xylenes, Total	ND	0.096		mg/Kg	1	12/30/2013 6:49:26 PM	11012
Surr: 4-Bromofluorobenzene	98.4	80-120		%REC	1	12/30/2013 6:49:26 PM	11012
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	1.1	0.30		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Chloride	ND	1.5		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Nitrogen, Nitrite (As N)	ND	0.30		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Bromide	ND	0.30		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Nitrogen, Nitrate (As N)	ND	0.30		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	12/31/2013 5:47:10 PM	11037
Sulfate	1200	30		mg/Kg	20	12/31/2013 5:59:35 PM	11037
<b>EPA METHOD 7471: MERCURY</b>							Analyst: JML
Mercury	ND	0.033		mg/Kg	1	1/7/2014 4:10:36 PM	11093
<b>EPA METHOD 6010B: SOIL METALS</b>							Analyst: JLF
Arsenic	ND	2.4		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Barium	5.8	0.097		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Cadmium	ND	0.097		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Calcium	2700	24		mg/Kg	1	1/10/2014 10:08:33 AM	11125
Chromium	1.2	0.29		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Lead	3.0	0.24		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Magnesium	580	24		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Potassium	350	48		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Selenium	ND	2.4		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Silver	ND	0.24		mg/Kg	1	1/9/2014 1:55:11 PM	11125
Sodium	100	24		mg/Kg	1	1/9/2014 1:55:11 PM	11125

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.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

**Client:** Blagg Engineering

**Project:** JFJ Landfarm

Sample ID <b>MB-11037</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBS</b>	Batch ID: <b>11037</b>		RunNo: <b>15844</b>							
Prep Date: <b>12/31/2013</b>	Analysis Date: <b>12/31/2013</b>		SeqNo: <b>457142</b>				Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P)	ND	1.5								
Sulfate	ND	1.5								

Sample ID <b>LCS-11037</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>11037</b>		RunNo: <b>15844</b>							
Prep Date: <b>12/31/2013</b>	Analysis Date: <b>12/31/2013</b>		SeqNo: <b>457143</b>				Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	97.1	90	110			
Chloride	14	1.5	15.00	0	93.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.1	90	110			
Bromide	7.4	0.30	7.500	0	98.8	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	14	1.5	15.00	0	92.4	90	110			
Sulfate	29	1.5	30.00	0	95.6	90	110			

Sample ID <b>1312B93-001BMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>Cell 3F</b>	Batch ID: <b>11037</b>		RunNo: <b>15844</b>							
Prep Date: <b>12/31/2013</b>	Analysis Date: <b>12/31/2013</b>		SeqNo: <b>457147</b>				Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	1.001	91.8	71.3	115			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	92.1	79.5	103			
Bromide	7.3	0.30	7.500	0	97.8	80.4	110			
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0.1371	98.2	68.7	119			
Phosphorus, Orthophosphate (As P)	6.5	1.5	15.00	0	43.3	15.5	98.5			

Sample ID <b>1312B93-001BMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>Cell 3F</b>	Batch ID: <b>11037</b>		RunNo: <b>15844</b>							
Prep Date: <b>12/31/2013</b>	Analysis Date: <b>12/31/2013</b>		SeqNo: <b>457148</b>				Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	1.001	91.1	71.3	115	0.688	20	
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.3	79.5	103	1.20	20	
Bromide	7.3	0.30	7.500	0	97.6	80.4	110	0.284	20	

**Qualifiers:**

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering  
Project: JFJ Landfarm

Sample ID	1312B93-001BMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	Cell 3F	Batch ID:	11037	RunNo:	15844					
Prep Date:	12/31/2013	Analysis Date:	12/31/2013	SeqNo:	457148	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0.1371	98.0	68.7	119	0.228	20	
Phosphorus, Orthophosphate (As P)	6.5	1.5	15.00	0	43.5	15.5	98.5	0.438	20	

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-10990	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	10990	RunNo:	15783					
Prep Date:	12/26/2013	Analysis Date:	12/30/2013	SeqNo:	455956	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		81.8	66	131			

Sample ID	LCS-10990	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	10990	RunNo:	15783					
Prep Date:	12/26/2013	Analysis Date:	12/30/2013	SeqNo:	455957	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	60.8	145			
Surr: DNOP	4.5		5.000		89.4	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 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-11012	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	11012	RunNo:	15809					
Prep Date:	12/27/2013	Analysis Date:	12/30/2013	SeqNo:	456311	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		87.3	74.5	129			

Sample ID	LCS-11012	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	11012	RunNo:	15809					
Prep Date:	12/27/2013	Analysis Date:	12/30/2013	SeqNo:	456327	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	117	74.5	126			
Surr: BFB	960		1000		95.9	74.5	129			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-11012	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11012	RunNo:	15809					
Prep Date:	12/27/2013	Analysis Date:	12/30/2013	SeqNo:	456369	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	0.99		1.000		98.7	80	120			

Sample ID	LCS-11012	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11012	RunNo:	15809					
Prep Date:	12/27/2013	Analysis Date:	12/30/2013	SeqNo:	456370	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	107	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

**Qualifiers:**

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-11093	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	11093	RunNo:	15949					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459756	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-11093	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	11093	RunNo:	15949					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459757	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312B93

14-Jan-14

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-11125</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11125</b>	RunNo:	<b>15987</b>					
Prep Date:	<b>1/8/2014</b>	Analysis Date:	<b>1/9/2014</b>	SeqNo:	<b>460566</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Magnesium	ND	25								
Potassium	ND	50								
Selenium	ND	2.5								
Silver	ND	0.25								
Sodium	ND	25								

Sample ID	<b>LCS-11125</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11125</b>	RunNo:	<b>15987</b>					
Prep Date:	<b>1/8/2014</b>	Analysis Date:	<b>1/9/2014</b>	SeqNo:	<b>460567</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	22	2.5	25.00	0	89.5	80	120			
Barium	22	0.10	25.00	0	86.1	80	120			
Cadmium	22	0.10	25.00	0	88.8	80	120			
Chromium	22	0.30	25.00	0	87.2	80	120			
Lead	22	0.25	25.00	0	87.5	80	120			
Magnesium	2300	25	2500	0	90.5	80	120			
Potassium	2200	50	2500	0	89.3	80	120			
Selenium	21	2.5	25.00	0	85.8	80	120			
Silver	4.6	0.25	5.000	0	92.4	80	120			
Sodium	2200	25	2500	0	89.2	80	120			

Sample ID	<b>MB-11125</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>11125</b>	RunNo:	<b>16004</b>					
Prep Date:	<b>1/8/2014</b>	Analysis Date:	<b>1/9/2014</b>	SeqNo:	<b>461047</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								

Sample ID	<b>LCS-11125</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 6010B: Soil Metals</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>11125</b>	RunNo:	<b>16004</b>					
Prep Date:	<b>1/8/2014</b>	Analysis Date:	<b>1/9/2014</b>	SeqNo:	<b>461048</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2400	25	2500	0	95.7	80	120			

**Qualifiers:**

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



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: **1312B93**

RcptNo: **1**

Received by/date: LM 12/27/13

Logged By: **Anne Thorne** 12/27/2013 10:00:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 12/27/2013 *Anne Thorne*

Reviewed By: *[Signature]* 12/27/13

**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	5.7	Good	Yes			



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

March 04, 2014

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

RE: JF J Landfarm

OrderNo.: 1402B17

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/28/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109





# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402B17

04-Mar-14

Client: Blagg Engineering

Project: JF J Landfarm

Sample ID	MB-11949	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	11949	RunNo	17054					
Prep Date	2/28/2014	Analysis Date	2/28/2014	SeqNo	490414	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-11949	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	11949	RunNo	17054					
Prep Date	2/28/2014	Analysis Date	2/28/2014	SeqNo	490415	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.2	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

**Sample Log-In Check List**

Client Name: **BLAGG**

Work Order Number: **1402B17**

RcptNo: **1**

Received by/date: NG 02/28/14

Logged By: **Lindsay Mangin** 2/28/2014 10:00:00 AM *[Signature]*

Completed By: **Lindsay Mangin** 2/28/2014 10:25:58 AM *[Signature]*

Reviewed By: IO 02/28/2014

**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? (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			

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

RECEIVED OCD

RECEIVED OCD

USPS CERTIFIED

7011 1570 0002 N 2817 B34762

2013 NOV 15 P 2: 22

November 14, 2013

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

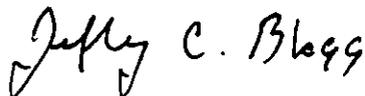
Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2013 3<sup>rd</sup> Quarterly Report on Treatment Zone Monitoring

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on September 25, 2013.

The facility permit describes quarterly cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B and total chloride by U.S. EPA 300. For this event samples were collected from active cell units 2b, 3h, 4c, 7h, 8c, 9b, 11c, 12a and 13h (see attached figure). All testing found total petroleum hydrocarbons, BTEX and chloride within permit limits.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

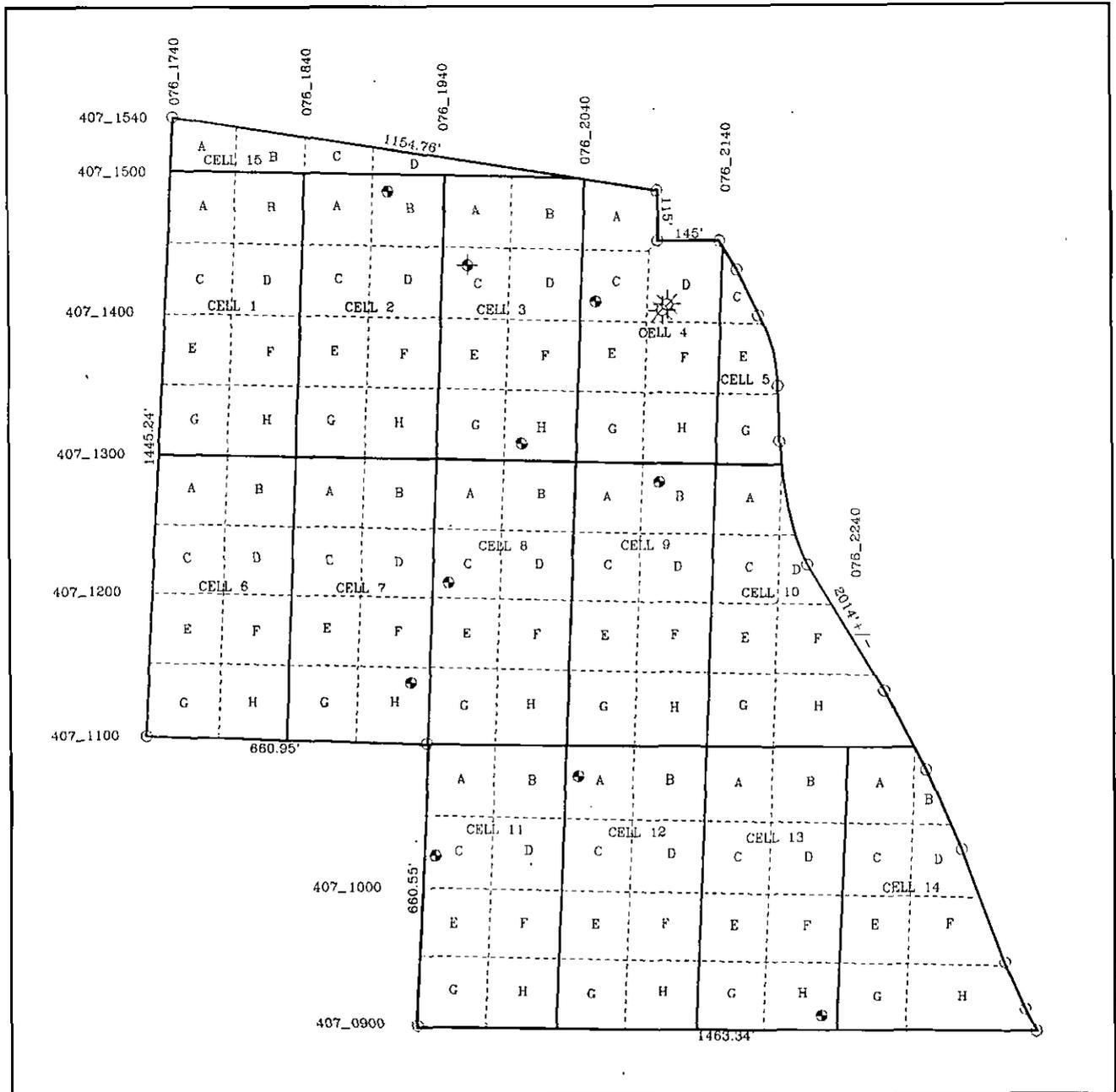
Respectfully submitted:  
**Blagg Engineering, Inc.**



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



**LEGEND**

- Active Gas Well
- PxA Gas Well
- Sample Point

N

0                      500                      1000 Feet

JFJ LANDFARM FACILITY

BLAGG ENGINEERING, INC.

DATE: SEP 2013

FIGURE 1

BY: JCB

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





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

October 08, 2013

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

RE: Blagg ~~BP Standard~~  
JFJ LF

OrderNo.: 1309D86

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/27/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering Client Sample ID: Cell 2B  
 Project: Blagg BP Standard *JFJ LF* Collection Date: 9/25/2013 3:40:00 PM  
 Lab ID: 1309D86-001 Matrix: SOIL Received Date: 9/27/2013 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	10/1/2013 3:27:25 PM	9551
Surr: DNOP	85.4	63-147		%REC	1	10/1/2013 3:27:25 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 4:13:34 PM	9556
Surr: BFB	91.1	80-120		%REC	1	10/1/2013 4:13:34 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 4:13:34 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 4:13:34 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 4:13:34 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 4:13:34 PM	9556
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	10/1/2013 4:13:34 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	2.1	1.5		mg/Kg	1	10/2/2013 6:19:02 PM	9612

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

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering Client Sample ID: Cell 3H  
 Project: Blagg BP Standard- JFJ LF Collection Date: 9/25/2013 3:00:00 PM  
 Lab ID: 1309D86-002 Matrix: SOIL Received Date: 9/27/2013 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	10/1/2013 3:49:22 PM	9551
Surr: DNOP	86.1	63-147		%REC	1	10/1/2013 3:49:22 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 4:42:05 PM	9556
Surr: BFB	90.0	80-120		%REC	1	10/1/2013 4:42:05 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 4:42:05 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 4:42:05 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 4:42:05 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 4:42:05 PM	9556
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/1/2013 4:42:05 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	10/2/2013 6:43:52 PM	9612

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 4C

Project: Blagg BP Standard *JFJ LF*

Collection Date: 9/25/2013 2:15:00 PM

Lab ID: 1309D86-003

Matrix: SOIL

Received Date: 9/27/2013 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	10/1/2013 4:11:14 PM	9551
Surr: DNOP	69.6	63-147		%REC	1	10/1/2013 4:11:14 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 5:10:40 PM	9556
Surr: BFB	92.4	80-120		%REC	1	10/1/2013 5:10:40 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 5:10:40 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 5:10:40 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 5:10:40 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 5:10:40 PM	9556
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/1/2013 5:10:40 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	10/2/2013 7:08:42 PM	9612

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering Client Sample ID: Cell 7H  
 Project: Blagg ~~DP Standard~~ JFJ LF Collection Date: 9/25/2013 11:00:00 AM  
 Lab ID: 1309D86-004 Matrix: SOIL Received Date: 9/27/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	17	10		mg/Kg	1	10/1/2013 4:33:05 PM	9551
Surr: DNOP	81.0	63-147		%REC	1	10/1/2013 4:33:05 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 5:39:20 PM	9556
Surr: BFB	88.6	80-120		%REC	1	10/1/2013 5:39:20 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/1/2013 5:39:20 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 5:39:20 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 5:39:20 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 5:39:20 PM	9556
Surr: 4-Bromofluorobenzene	97.0	80-120		%REC	1	10/1/2013 5:39:20 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Chloride	ND	1.5		mg/Kg	1	10/2/2013 8:23:08 PM	9612

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 8C

Project: Blagg ~~BP Standard~~ *JFJL*

Collection Date: 9/25/2013 1:10:00 PM

Lab ID: 1309D86-005

Matrix: SOIL

Received Date: 9/27/2013 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	10/1/2013 4:55:08 PM	9551
Surr: DNOP	79.5	63-147		%REC	1	10/1/2013 4:55:08 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 6:07:57 PM	9556
Surr: BFB	90.7	80-120		%REC	1	10/1/2013 6:07:57 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 6:07:57 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 6:07:57 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 6:07:57 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 6:07:57 PM	9556
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/1/2013 6:07:57 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	10/2/2013 8:47:57 PM	9612

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering Client Sample ID: Cell 9B  
 Project: Blagg BP Standard *JFJ LF* Collection Date: 9/25/2013 1:40:00 PM  
 Lab ID: 1309D86-006 Matrix: SOIL Received Date: 9/27/2013 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)	10	10		mg/Kg	1	10/1/2013 5:16:50 PM	9551
Surr: DNOP	82.3	63-147		%REC	1	10/1/2013 5:16:50 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 6:36:35 PM	9556
Surr: BFB	87.3	80-120		%REC	1	10/1/2013 6:36:35 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 6:36:35 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 6:36:35 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 6:36:35 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 6:36:35 PM	9556
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	10/1/2013 6:36:35 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	10/2/2013 9:12:46 PM	9612

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 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering Client Sample ID: Cell 11C  
 Project: Blagg BP Standard *JFJ LF* Collection Date: 9/25/2013 10:20:00 AM  
 Lab ID: 1309D86-007 Matrix: SOIL Received Date: 9/27/2013 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	10/1/2013 6:00:15 PM	9551
Surr: DNOP	82.7	63-147		%REC	1	10/1/2013 6:00:15 PM	9551
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/1/2013 7:05:10 PM	9556
Surr: BFB	88.8	80-120		%REC	1	10/1/2013 7:05:10 PM	9556
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/1/2013 7:05:10 PM	9556
Toluene	ND	0.050		mg/Kg	1	10/1/2013 7:05:10 PM	9556
Ethylbenzene	ND	0.050		mg/Kg	1	10/1/2013 7:05:10 PM	9556
Xylenes, Total	ND	0.10		mg/Kg	1	10/1/2013 7:05:10 PM	9556
Surr: 4-Bromofluorobenzene	98.4	80-120		%REC	1	10/1/2013 7:05:10 PM	9556
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	10/4/2013 10:59:19 PM	9638

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

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





# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309D86

08-Oct-13

Client: Blagg Engineering  
Project: Blagg-~~BP~~ Standard *JFJ LF*

Sample ID	<b>MB-9612</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>9612</b>	RunNo:	<b>13804</b>					
Prep Date:	<b>10/2/2013</b>	Analysis Date:	<b>10/2/2013</b>	SeqNo:	<b>394202</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-9612</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>9612</b>	RunNo:	<b>13804</b>					
Prep Date:	<b>10/2/2013</b>	Analysis Date:	<b>10/2/2013</b>	SeqNo:	<b>394203</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.1	90	110			

Sample ID	<b>MB-9638</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>9638</b>	RunNo:	<b>13833</b>					
Prep Date:	<b>10/3/2013</b>	Analysis Date:	<b>10/3/2013</b>	SeqNo:	<b>395439</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309D86

08-Oct-13

Client: Blagg Engineering  
Project: Blagg ~~BP~~ Standard *JFS LF*

Sample ID	LCS-9551	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9551	RunNo:	13697					
Prep Date:	9/30/2013	Analysis Date:	9/30/2013	SeqNo:	390356	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	90.3	77.1	128			
Surr: DNOP	3.8		5.000		75.6	63	147			

Sample ID	MB-9551	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9551	RunNo:	13697					
Prep Date:	9/30/2013	Analysis Date:	9/30/2013	SeqNo:	390358	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	7.0		10.00		70.4	63	147			

Sample ID	MB-9576	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9576	RunNo:	13723					
Prep Date:	10/1/2013	Analysis Date:	10/1/2013	SeqNo:	391935	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.8	63	147			

Sample ID	LCS-9576	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9576	RunNo:	13723					
Prep Date:	10/1/2013	Analysis Date:	10/1/2013	SeqNo:	391959	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	63	147			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309D86

08-Oct-13

Client: Blagg Engineering  
Project: Blagg ~~BP Standard~~ JFJ LF

Sample ID	MB-9556	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	9556	RunNo	13760					
Prep Date	9/30/2013	Analysis Date	10/1/2013	SeqNo	392566	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	930		1000		92.8	80	120			

Sample ID	LCS-9556	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	9556	RunNo	13760					
Prep Date	9/30/2013	Analysis Date	10/1/2013	SeqNo	392567	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	74.5	126			
Surr: BFB	1000		1000		100	80	120			

### Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309D86

08-Oct-13

Client: Blagg Engineering  
Project: Blagg DP Standard *JFJ LF*

Sample ID	MB-9556	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	9556	RunNo:	13760					
Prep Date:	9/30/2013	Analysis Date:	10/1/2013	SeqNo:	392635	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-9556	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	9556	RunNo:	13760					
Prep Date:	9/30/2013	Analysis Date:	10/1/2013	SeqNo:	392641	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	95.9	80	120			
Toluene	0.98	0.050	1.000	0	98.3	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

### Qualifiers:

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

**Sample Log-In Check List**

Client Name: **BLAGG**

Work Order Number: **1309D86**

RcptNo: **1**

Received by/date: *[Signature]* 09/27/13  
 Logged By: **Lindsay Mangin** 9/27/2013 10:00:00 AM *[Signature]*  
 Completed By: **Lindsay Mangin** 9/30/2013 8:13:39 AM *[Signature]*  
 Reviewed By: *AT 09/30/13*

**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: *Per JB Cell 13A was collected at 0842*

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

*AT 09/30/13*

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

USPS CERTIFIED  
7011 1570 0002 2817 3452

August 6, 2013

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2013 2<sup>nd</sup> Quarterly Report on Treatment Zone Monitoring

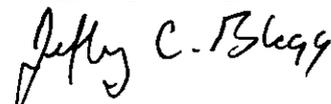
RECEIVED OGD  
2013 AUG - 8 P 2: 15

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on June 11, 2013.

The facility permit describes quarterly cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B and total chloride by U.S. EPA 300. For this event samples were collected from active cell units 2d, 3g, 4f, 7g, 8g, 9ba, 11d, 12c and 13e (see attached figure). All testing found total petroleum hydrocarbons, BTEX and chloride within permit limits.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

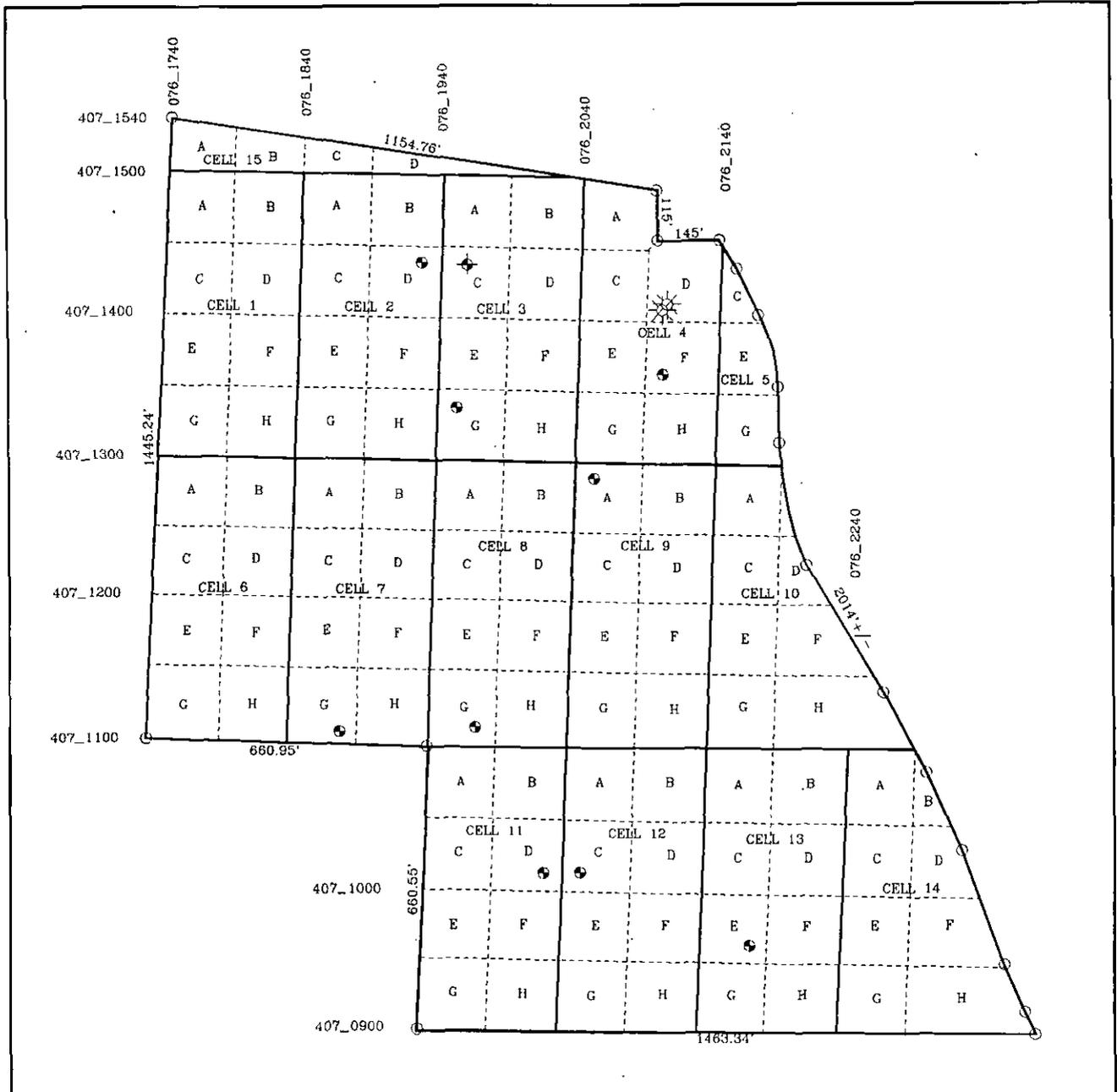
Respectfully submitted:  
**Blagg Engineering, Inc.**



Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington



LEGEND

- Active Gas Well
- PxA Gas Well
- Sample Point

N

0                      500                      1000 Feet

JFJ LANDFARM FACILITY		BLAGG ENGINEERING, INC.	
DATE: JUN 2013	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199



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

June 25, 2013

Jeff Blagg

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 320-1183

FAX (505) 632-3903

RE:  JJ Landfarm

OrderNo.: 1306609

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/14/2013 for the analyses presented in the following report.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering      Client Sample ID: Cell 2D  
 Project: JFJ Landfarm      Collection Date: 6/11/2013 2:55:00 PM  
 Lab ID: 1306609-001      Matrix: SOIL      Received Date: 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/19/2013 7:08:44 PM	7928
Surr: DNOP	67.7	63-147		%REC	1	6/19/2013 7:08:44 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/18/2013 4:15:15 PM	7950
Surr: BFB	97.2	80-120		%REC	1	6/18/2013 4:15:15 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	6/18/2013 4:15:15 PM	7950
Toluene	ND	0.046		mg/Kg	1	6/18/2013 4:15:15 PM	7950
Ethylbenzene	ND	0.046		mg/Kg	1	6/18/2013 4:15:15 PM	7950
Xylenes, Total	ND	0.092		mg/Kg	1	6/18/2013 4:15:15 PM	7950
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/18/2013 4:15:15 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	6/21/2013 8:21:25 AM	8037

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	J Analyte detected below quantitation limits	H Holding times for preparation or analysis exceeded
O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit
		P Sample pH greater than 2 for VOA and TOC only.
		RL Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering      Client Sample ID: Cell 3G  
 Project: JFJ Landfarm      Collection Date: 6/11/2013 2:35:00 PM  
 Lab ID: 1306609-002      Matrix: SOIL      Received Date: 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/19/2013 7:30:39 PM	7928
Surr: DNOP	104	63-147		%REC	1	6/19/2013 7:30:39 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/18/2013 4:43:49 PM	7950
Surr: BFB	98.9	80-120		%REC	1	6/18/2013 4:43:49 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	6/18/2013 4:43:49 PM	7950
Toluene	ND	0.048		mg/Kg	1	6/18/2013 4:43:49 PM	7950
Ethylbenzene	ND	0.048		mg/Kg	1	6/18/2013 4:43:49 PM	7950
Xylenes, Total	ND	0.096		mg/Kg	1	6/18/2013 4:43:49 PM	7950
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/18/2013 4:43:49 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	6/21/2013 8:46:14 AM	8037

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

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

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering **Client Sample ID:** Cell 4F  
**Project:** JFJ Landfarm **Collection Date:** 6/11/2013 2:10:00 PM  
**Lab ID:** 1306609-003 **Matrix:** SOIL **Received Date:** 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2013 2:06:45 PM	7928
Surr: DNOP	54.6	63-147	S	%REC	1	6/20/2013 2:06:45 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/19/2013 1:40:00 PM	7950
Surr: BFB	106	80-120		%REC	1	6/19/2013 1:40:00 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	6/19/2013 1:40:00 PM	7950
Toluene	0.062	0.046		mg/Kg	1	6/19/2013 1:40:00 PM	7950
Ethylbenzene	ND	0.046		mg/Kg	1	6/19/2013 1:40:00 PM	7950
Xylenes, Total	0.32	0.093		mg/Kg	1	6/19/2013 1:40:00 PM	7950
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	6/19/2013 1:40:00 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	7.5		mg/Kg	5	6/21/2013 9:11:04 AM	8037

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

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

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering **Client Sample ID:** Cell 7G  
**Project:** JFJ Landfarm **Collection Date:** 6/11/2013 12:58:00 PM  
**Lab ID:** 1306609-004 **Matrix:** SOIL **Received Date:** 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	11	9.9		mg/Kg	1	6/20/2013 2:28:35 PM	7928
Surr: DNOP	62.1	63-147	S	%REC	1	6/20/2013 2:28:35 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5.2	4.7		mg/Kg	1	6/19/2013 2:08:45 PM	7950
Surr: BFB	110	80-120		%REC	1	6/19/2013 2:08:45 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	6/19/2013 2:08:45 PM	7950
Toluene	0.077	0.047		mg/Kg	1	6/19/2013 2:08:45 PM	7950
Ethylbenzene	ND	0.047		mg/Kg	1	6/19/2013 2:08:45 PM	7950
Xylenes, Total	0.34	0.094		mg/Kg	1	6/19/2013 2:08:45 PM	7950
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	6/19/2013 2:08:45 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	140	30		mg/Kg	20	6/21/2013 9:48:19 AM	8037

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

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



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering  
 Project: JFJ Landfarm  
 Lab ID: 1306609-006

Matrix: SOIL

Client Sample ID: Cell 9A  
 Collection Date: 6/11/2013 1:45:00 PM  
 Received Date: 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2013 2:50:32 PM	7928
Surr: DNOP	50.6	63-147	S	%REC	1	6/20/2013 2:50:32 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/19/2013 2:37:22 PM	7950
Surr: BFB	101	80-120		%REC	1	6/19/2013 2:37:22 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	6/19/2013 2:37:22 PM	7950
Toluene	ND	0.046		mg/Kg	1	6/19/2013 2:37:22 PM	7950
Ethylbenzene	ND	0.046		mg/Kg	1	6/19/2013 2:37:22 PM	7950
Xylenes, Total	0.16	0.092		mg/Kg	1	6/19/2013 2:37:22 PM	7950
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	6/19/2013 2:37:22 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	7.5		mg/Kg	5	6/21/2013 5:04:38 PM	8037

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
Q	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: JFJ Landfarm

Lab ID: 1306609-007

Matrix: SOIL

Client Sample ID: Cell 11D

Collection Date: 6/11/2013 12:45:00 PM

Received Date: 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	18	9.9		mg/Kg	1	6/19/2013 9:41:57 PM	7928
Surr: DNOP	90.3	63-147		%REC	1	6/19/2013 9:41:57 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	11	4.7		mg/Kg	1	6/19/2013 3:06:02 PM	7950
Surr: BFB	157	80-120	S	%REC	1	6/19/2013 3:06:02 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	6/19/2013 3:06:02 PM	7950
Toluene	ND	0.047		mg/Kg	1	6/19/2013 3:06:02 PM	7950
Ethylbenzene	ND	0.047		mg/Kg	1	6/19/2013 3:06:02 PM	7950
Xylenes, Total	0.68	0.094		mg/Kg	1	6/19/2013 3:06:02 PM	7950
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/19/2013 3:06:02 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	7.5		mg/Kg	5	6/21/2013 5:29:27 PM	8037

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

**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.

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: Cell 13E

Project: JFJ Landfarm

Collection Date: 6/11/2013 12:10:00 PM

Lab ID: 1306609-009

Matrix: SOIL

Received Date: 6/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/19/2013 10:25:42 PM	7928
Surr: DNOP	108	63-147		%REC	1	6/19/2013 10:25:42 PM	7928
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/18/2013 11:52:54 PM	7950
Surr: BFB	99.8	80-120		%REC	1	6/18/2013 11:52:54 PM	7950
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	6/18/2013 11:52:54 PM	7950
Toluene	ND	0.046		mg/Kg	1	6/18/2013 11:52:54 PM	7950
Ethylbenzene	ND	0.046		mg/Kg	1	6/18/2013 11:52:54 PM	7950
Xylenes, Total	ND	0.092		mg/Kg	1	6/18/2013 11:52:54 PM	7950
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	6/18/2013 11:52:54 PM	7950
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	6/21/2013 6:19:04 PM	8037

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 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306609

25-Jun-13

**Client:** Blagg Engineering  
**Project:** JFJ Landfarm

Sample ID	MB-8037	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	8037	RunNo:	11474					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	324577	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-8037	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	8037	RunNo:	11474					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	324578	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID	1306866-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	8037	RunNo:	11474					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	324584	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	7.5	15.00	0	96.6	58.8	109			

Sample ID	1306866-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	8037	RunNo:	11474					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	324585	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	7.5	15.00	0	93.2	58.8	109	3.57	20	

Sample ID	1306609-005AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	Cell 8G	Batch ID:	8037	RunNo:	11511					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	325689	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	7.5	15.00	0	96.0	58.8	109			

Sample ID	1306609-005AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	Cell 8G	Batch ID:	8037	RunNo:	11511					
Prep Date:	6/20/2013	Analysis Date:	6/21/2013	SeqNo:	325690	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	7.5	15.00	0	93.8	58.8	109	2.34	20	

**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
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306609

25-Jun-13

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	MB-7928	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	7928	RunNo:	11331					
Prep Date:	6/14/2013	Analysis Date:	6/17/2013	SeqNo:	320775	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	7.1		10.00		70.6	63	147			

Sample ID	LCS-7928	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	7928	RunNo:	11331					
Prep Date:	6/14/2013	Analysis Date:	6/17/2013	SeqNo:	320776	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	77.1	128			
Surr: DNOP	3.2		5.000		63.2	63	147			

Sample ID	1306562-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	7928	RunNo:	11331					
Prep Date:	6/14/2013	Analysis Date:	6/17/2013	SeqNo:	320777	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.9	49.55	0	84.7	61.3	138			
Surr: DNOP	3.3		4.955		65.9	63	147			

Sample ID	1306562-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	7928	RunNo:	11331					
Prep Date:	6/14/2013	Analysis Date:	6/17/2013	SeqNo:	320778	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.10	0	85.1	61.3	138	1.54	20	
Surr: DNOP	3.4		5.010		68.5	63	147	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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306609

25-Jun-13

Client: Blagg Engineering

Project: JFJ Landfarm

Sample ID	<b>MB-7950</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321775</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.8	80	120			

Sample ID	<b>LCS-7950</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321782</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	62.6	136			
Surr: BFB	1000		1000		103	80	120			

Sample ID	<b>1306528-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321786</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	24.11	0	114	76	156			
Surr: BFB	1000		964.3		106	80	120			

Sample ID	<b>1306528-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321787</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.8	24.11	0	121	76	156	6.13	17.7	
Surr: BFB	1000		964.3		107	80	120	0	0	

### Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306609

25-Jun-13

**Client:** Blagg Engineering  
**Project:** JFJ Landfarm

Sample ID	<b>MB-7950</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321840</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	1.0		1.000		102	80	120			

Sample ID	<b>LCS-7950</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11374</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/18/2013</b>	SeqNo:	<b>321844</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	<b>1306605-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11425</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/19/2013</b>	SeqNo:	<b>323060</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.24	0.9407	0.07302	110	67.3	145			
Toluene	3.2	0.24	0.9407	1.422	188	66.8	144			S
Ethylbenzene	3.9	0.24	0.9407	1.982	209	61.9	153			S
Xylenes, Total	14	0.47	2.822	7.154	228	65.8	149			S
Surr: 4-Bromofluorobenzene	5.5		4.704		117	80	120			

Sample ID	<b>1306605-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>7950</b>	RunNo:	<b>11425</b>					
Prep Date:	<b>6/17/2013</b>	Analysis Date:	<b>6/19/2013</b>	SeqNo:	<b>323061</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.23	0.9398	0.07302	106	67.3	145	3.75	20	
Toluene	3.2	0.23	0.9398	1.422	185	66.8	144	0.958	20	S
Ethylbenzene	4.0	0.23	0.9398	1.982	216	61.9	153	1.75	20	S
Xylenes, Total	14	0.47	2.820	7.154	238	65.8	149	2.02	20	S
Surr: 4-Bromofluorobenzene	5.7		4.699		120	80	120	0	0	S

**Qualifiers:**

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



**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

April 26, 2013

Mr. Brad Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: JFJ Waste Management Facility: Permit NM-01-0010B  
2013 1<sup>st</sup> Quarterly Report on Treatment Zone Monitoring

On behalf of JFJ Landfarm L.L.C., Blagg Engineering, Inc. (BEI) is submitting quarterly treatment zone monitoring test results for the JFJ Waste Management Facility pursuant to Permit NM-01-0010B. This report is for the quarterly sample event conducted on March 26, 2013.

The facility permit describes quarterly cell sampling to be within the treatment zone, defined in the permit as: "A treatment zone not to exceed three (3) feet beneath the landfarm and compost pile native ground surface". This is the interval that was sampled during the sample event. Samples were submitted to Hall Environmental Laboratories in Albuquerque, New Mexico for analytical testing that included total petroleum hydrocarbons (TPH) by U.S. EPA Method 8015B, volatile hydrocarbons (BTEX) by U.S. EPA Method 8021B and total chloride by U.S. EPA 300. For this event samples were collected from active cell units 2b, 3h, 4g, 7c, 8c, 9b, 11g, 12g and 13g (see attached figure). All testing found total petroleum hydrocarbons, BTEX and chloride within permit limits.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Jake Hatcher with JFJ Landfarm L.L.C. at (505)632-1786.

Respectfully submitted:  
**Blagg Engineering, Inc.**

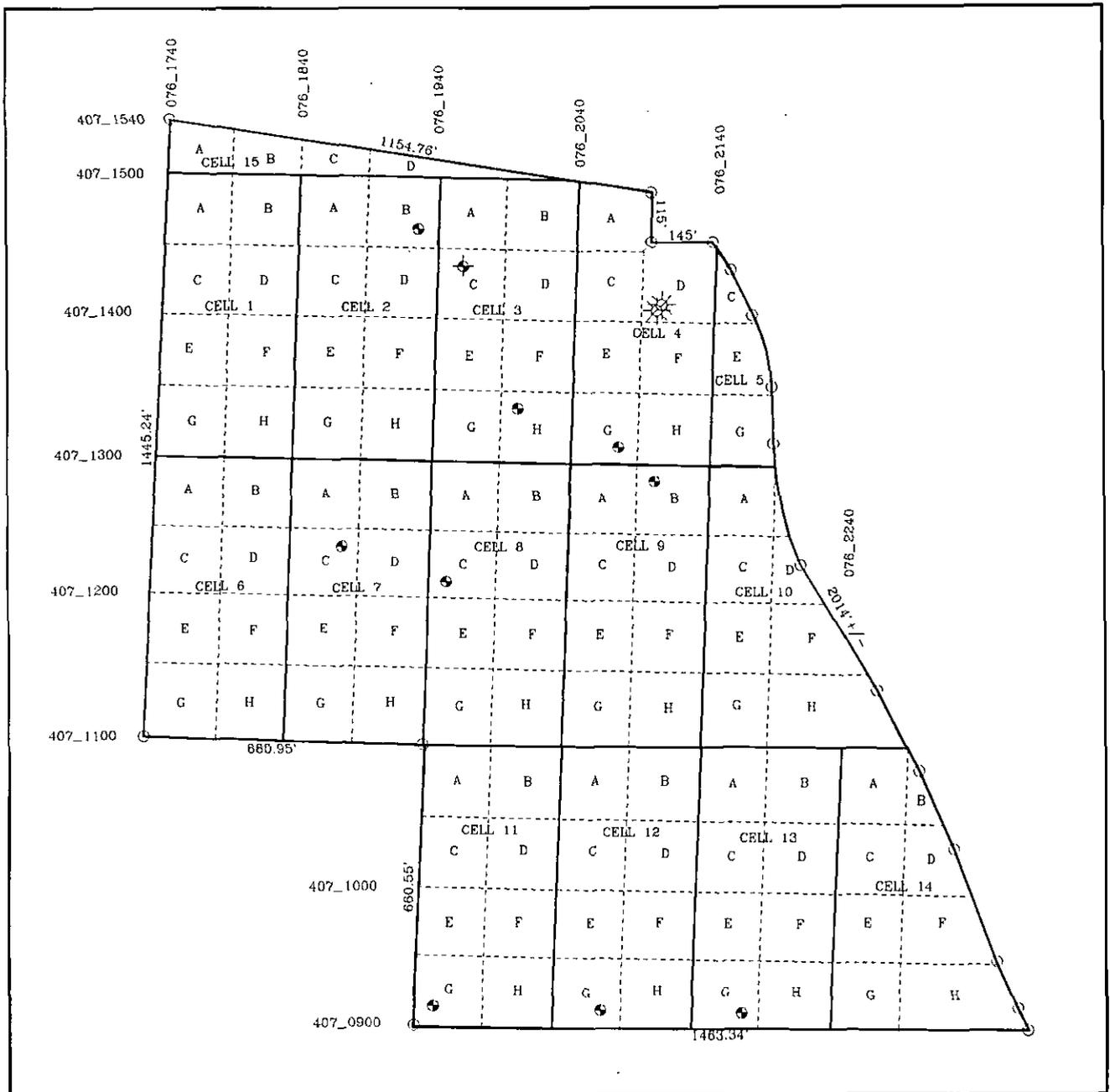


Jeffrey C. Blagg, P.E.  
President

Attachments: Site Figure  
Analytical Test Reports

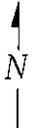
cc: Brandon Powell, NMOCD Aztec District Office  
Jake Hatcher, JFJ Farmington

RECEIVED OGD  
2013 MAY -3 P 2:20



LEGEND

-  Active Gas Well
-  PxA Gas Well
-  Sample Point



N



0                      500                      1000 Feet

JFJ LANDFARM FACILITY		BLAGG ENGINEERING, INC.	
DATE: MAR 2013	FIGURE 1	BY: JCB	P.O. BOX 87, BLOOMFIELD, NM PHONE: (505)632-1199



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

April 03, 2013

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

RE: JFJ LF

OrderNo.: 1303B09

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/28/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the *sample checklist and/or the Chain of Custody* for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

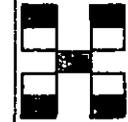
A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Chain-of-Custody Record

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

Turn-Around Time:  
 Standard  Rush  
 Project Name: **LF**  
**JFJ QUARTER**  
 Project #:  
 Project Manager:  
**J. Blagg**  
 Sampler: **J. Blagg**  
 Sample Temperature: \_\_\_\_\_



## 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	HEATING	BTEX + MTBE + TPB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MIBK)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE	Air Bubbles (Y or N)
3/20/13	1148	SOIL	CELL 9B	403x1	COOL	6036	X	X										X	
"	1213	"	CELL 4G	"	"		X	X										X	
"	1235	"	CELL 3H	"	"		X	X										X	
"	1256	"	CELL 8C	"	"		X	X										X	
"	1321	"	CELL 7C	"	"		X	X										X	
"	1355	"	CELL 2B	"	"		X	X										X	
"	1428	"	CELL 11G	"	"		X	X										X	
"	1454	"	CELL 12G	"	"		X	X										X	
"	1525	"	CELL 13G	"	"		X	X										X	

Date: 3/27/13 Time: 1538 Relinquished by: *JH Blagg*  
 Received by: *Christen Waalen* Date: 3/27/13 Time: 1538  
 Date: 3/27/13 Time: 1719 Relinquished by: *Christen Waalen*  
 Received by: *[Signature]* Date: 03/28/13 Time: 0953

Remarks: **Bill Blagg**

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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: CELL 9B

Project: JFJ LF

Collection Date: 3/26/2013 11:48:00 AM

Lab ID: 1303B09-001

Matrix: SOIL

Received Date: 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: MMD
Diesel Range Organics (DRO)	11	10		mg/Kg	1	4/2/2013 5:43:30 PM
Surr: DNOP	103	72.4-120		%REC	1	4/2/2013 5:43:30 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/29/2013 6:04:53 PM
Surr: BFB	91.2	84-116		%REC	1	3/29/2013 6:04:53 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	3/29/2013 6:04:53 PM
Toluene	ND	0.048		mg/Kg	1	3/29/2013 6:04:53 PM
Ethylbenzene	ND	0.048		mg/Kg	1	3/29/2013 6:04:53 PM
Xylenes, Total	ND	0.097		mg/Kg	1	3/29/2013 6:04:53 PM
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	3/29/2013 6:04:53 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	4/2/2013 10:01:03 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits





**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering **Client Sample ID:** CELL 8C  
**Project:** JFJ LF **Collection Date:** 3/26/2013 12:56:00 PM  
**Lab ID:** 1303B09-004 **Matrix:** SOIL **Received Date:** 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: MMD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/2/2013 7:58:58 PM
Surr: DNOP	104	72.4-120		%REC	1	4/2/2013 7:58:58 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/29/2013 11:05:08 PM
Surr: BFB	91.4	84-116		%REC	1	3/29/2013 11:05:08 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	3/29/2013 11:05:08 PM
Toluene	ND	0.047		mg/Kg	1	3/29/2013 11:05:08 PM
Ethylbenzene	ND	0.047		mg/Kg	1	3/29/2013 11:05:08 PM
Xylenes, Total	ND	0.093		mg/Kg	1	3/29/2013 11:05:08 PM
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	3/29/2013 11:05:08 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	4/2/2013 12:05:07 PM

**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
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:** CELL 7C

**Project:** JFJ L.F

**Collection Date:** 3/26/2013 1:21:00 PM

**Lab ID:** 1303B09-005

**Matrix:** SOIL

**Received Date:** 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: MMD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/2/2013 8:25:43 PM
Surr: DNOP	84.0	72.4-120		%REC	1	4/2/2013 8:25:43 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/29/2013 11:35:11 PM
Surr: BFB	91.6	84-116		%REC	1	3/29/2013 11:35:11 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	3/29/2013 11:35:11 PM
Toluene	ND	0.046		mg/Kg	1	3/29/2013 11:35:11 PM
Ethylbenzene	ND	0.046		mg/Kg	1	3/29/2013 11:35:11 PM
Xylenes, Total	ND	0.092		mg/Kg	1	3/29/2013 11:35:11 PM
Surr: 4-Bromofluorobenzene	96.7	80-120		%REC	1	3/29/2013 11:35:11 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	360	30		mg/Kg	20	4/2/2013 5:40:29 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: CELL11G

Project: JFJ LF

Collection Date: 3/26/2013 2:28:00 PM

Lab ID: 1303B09-007

Matrix: SOIL

Received Date: 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: MMD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/2/2013 9:19:55 PM
Surr: DNOP	103	72.4-120		%REC	1	4/2/2013 9:19:55 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/30/2013 12:35:16 AM
Surr: BFB	91.5	84-116		%REC	1	3/30/2013 12:35:16 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	3/30/2013 12:35:16 AM
Toluene	ND	0.048		mg/Kg	1	3/30/2013 12:35:16 AM
Ethylbenzene	ND	0.048		mg/Kg	1	3/30/2013 12:35:16 AM
Xylenes, Total	ND	0.095		mg/Kg	1	3/30/2013 12:35:16 AM
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	3/30/2013 12:35:16 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	4/2/2013 6:17:43 PM

**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
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: CELL12G

Project: JFJ LF

Collection Date: 3/26/2013 2:54:00 PM

Lab ID: 1303B09-008

Matrix: SOIL

Received Date: 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: MMD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/2/2013 9:46:58 PM
Surr: DNOP	101	72.4-120		%REC	1	4/2/2013 9:46:58 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/30/2013 1:05:13 AM
Surr: BFB	91.6	84-116		%REC	1	3/30/2013 1:05:13 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	3/30/2013 1:05:13 AM
Toluene	ND	0.046		mg/Kg	1	3/30/2013 1:05:13 AM
Ethylbenzene	ND	0.046		mg/Kg	1	3/30/2013 1:05:13 AM
Xylenes, Total	ND	0.093		mg/Kg	1	3/30/2013 1:05:13 AM
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	3/30/2013 1:05:13 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	ND	7.5		mg/Kg	5	4/2/2013 6:42:33 PM

**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
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:** CELL13G  
**Project:** JFJ LF **Collection Date:** 3/26/2013 3:25:00 PM  
**Lab ID:** 1303B09-009 **Matrix:** SOIL **Received Date:** 3/28/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/2/2013 10:41:16 PM
Surr: DNOP	104	72.4-120		%REC	1	4/2/2013 10:41:16 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/30/2013 1:35:08 AM
Surr: BFB	89.5	84-116		%REC	1	3/30/2013 1:35:08 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	3/30/2013 1:35:08 AM
Toluene	ND	0.046		mg/Kg	1	3/30/2013 1:35:08 AM
Ethylbenzene	ND	0.046		mg/Kg	1	3/30/2013 1:35:08 AM
Xylenes, Total	ND	0.093		mg/Kg	1	3/30/2013 1:35:08 AM
Surr: 4-Bromofluorobenzene	95.8	80-120		%REC	1	3/30/2013 1:35:08 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	7.5		mg/Kg	5	4/2/2013 7:07:21 PM

**Qualifiers:**

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303B09

03-Apr-13

Client: Blagg Engineering

Project: JFJ LF

Sample ID	MB-6785	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273660	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-6785	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273661	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	100	90	110			

Sample ID	1303B09-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	CELL 9B	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273663	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	7.5	15.00	4.740	91.7	64.4	117			

Sample ID	1303B09-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	CELL 9B	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273664	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	4.740	85.0	64.4	117	5.59	20	

Sample ID	1304053-002AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273685	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	8.880	94.3	64.4	117			

Sample ID	1304053-002AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	6785	RunNo:	9602					
Prep Date:	4/2/2013	Analysis Date:	4/2/2013	SeqNo:	273686	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	30	15.00	8.880	83.0	64.4	117	0	20	

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303B09

03-Apr-13

**Client:** Blagg Engineering  
**Project:** JFJ LF

Sample ID: <b>MB-6751</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>6751</b>	RunNo: <b>9544</b>								
Prep Date: <b>4/1/2013</b>	Analysis Date: <b>4/1/2013</b>	SeqNo: <b>272410</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.0	72.4	120			

Sample ID: <b>LCS-6751</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>6751</b>	RunNo: <b>9544</b>								
Prep Date: <b>4/1/2013</b>	Analysis Date: <b>4/1/2013</b>	SeqNo: <b>272411</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.4	47.4	122			
Surr: DNOP	5.3		5.000		105	72.4	120			

Sample ID: <b>1303B09-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>								
Client ID: <b>CELL 4G</b>	Batch ID: <b>6751</b>	RunNo: <b>9576</b>								
Prep Date: <b>4/1/2013</b>	Analysis Date: <b>4/2/2013</b>	SeqNo: <b>274056</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	72	10	50.45	25.19	93.0	12.6	148			
Surr: DNOP	5.7		5.045		113	72.4	120			

Sample ID: <b>1303B09-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>								
Client ID: <b>CELL 4G</b>	Batch ID: <b>6751</b>	RunNo: <b>9576</b>								
Prep Date: <b>4/1/2013</b>	Analysis Date: <b>4/2/2013</b>	SeqNo: <b>274057</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	78	9.7	48.69	25.19	108	12.6	148	7.46	22.5	
Surr: DNOP	5.5		4.869		114	72.4	120	0	0	

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303B09

03-Apr-13

**Client:** Blagg Engineering  
**Project:** JFJ LF

Sample ID: <b>MB-6713</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271753</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	84	116			

Sample ID: <b>LCS-6713</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271754</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	62.6	136			
Surr: BFB	940		1000		93.8	84	116			

Sample ID: <b>1303A89-008AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271756</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.7	23.50	1.741	111	70	130			
Surr: BFB	890		939.8		94.3	84	116			

Sample ID: <b>1303A89-008AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271757</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.45	1.741	117	70	130	4.82	22.1	
Surr: BFB	890		938.1		94.6	84	116	0	0	

Sample ID: <b>5ML RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R9512</b>	RunNo: <b>9512</b>								
Prep Date:	Analysis Date: <b>3/30/2013</b>	SeqNo: <b>271773</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		88.6	84	116			

Sample ID: <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R9512</b>	RunNo: <b>9512</b>								
Prep Date:	Analysis Date: <b>3/30/2013</b>	SeqNo: <b>271774</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.3	84	116			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303B09

03-Apr-13

**Client:** Blagg Engineering  
**Project:** JFJ LF

Sample ID <b>MB-6713</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271792</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID <b>LCS-6713</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271793</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	92.6	80	120			
Toluene	0.95	0.050	1.000	0	95.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID <b>1303A89-006AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271800</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.049	0.9737	0	95.3	67.2	113			
Toluene	0.97	0.049	0.9737	0	100	62.1	116			
Ethylbenzene	1.0	0.049	0.9737	0	103	67.9	127			
Xylenes, Total	3.1	0.097	2.921	0	107	60.6	134			
Surr: 4-Bromofluorobenzene	0.98		0.9737		101	80	120			

Sample ID <b>1303A89-006AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6713</b>	RunNo: <b>9512</b>								
Prep Date: <b>3/28/2013</b>	Analysis Date: <b>3/29/2013</b>	SeqNo: <b>271801</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.049	0.9756	0	99.9	67.2	113	4.92	14.3	
Toluene	1.0	0.049	0.9756	0	106	62.1	116	5.59	15.9	
Ethylbenzene	1.1	0.049	0.9756	0	109	67.9	127	5.40	14.4	
Xylenes, Total	3.3	0.098	2.927	0	113	60.6	134	6.07	12.6	
Surr: 4-Bromofluorobenzene	0.99		0.9756		102	80	120	0	0	

**Qualifiers:**

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303B09

03-Apr-13

Client: Blagg Engineering

Project: JFJ LF

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R9512	RunNo:	9512					
Prep Date:		Analysis Date:	3/30/2013	SeqNo:	271814	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		90.7	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R9512	RunNo:	9512					
Prep Date:		Analysis Date:	3/30/2013	SeqNo:	271815	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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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: 1303B09

RcptNo: 1

Received by/date: AG

Logged By: **Michelle Garcia** 3/28/2013 9:53:00 AM

Completed By: **Michelle Garcia** 3/28/2013 10:51:25 AM

Reviewed By: 03/28/13

**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	3.3	Good	Yes			