

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Riddle F LS 7	Facility Type: Natural gas well
Surface Owner: BLM	Mineral Owner: Federal
API No. 3004520447	

LOCATION OF RELEASE

Unit Letter P	Section 29	Township 28N	Range 8W	Feet from the 1180	North/South Line South	Feet from the 1040	East/West Line East	County: San Juan
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Latitude 36.62829 Longitude 107.69882

NATURE OF RELEASE

Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: possibly old dehy pit-hydrocarbon impacts found during BGT removal	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: June 12, 2013
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	RCOD NOV 18 '13
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
OIL CONS. DIV. DIST. 3		

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* During BGT removal operations impacted soil was discovered. Sandstone bedrock was found 7' to 8' below the surface.

Describe Area Affected and Cleanup Action Taken.* Impacted soil was excavated and removed to the sandstone bedrock surface. Approximately 345 cubic yards of impacted soil was taken to IEI landfarm for treatment. Exposed sandstone bedrock surface area was treated with hydrogen peroxide, then backfilled with clean fill material.

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

Signature: <i>Jeff Peace</i>	OIL CONSERVATION DIVISION	
Printed Name: Jeff Peace	Approved by Environmental Specialist: <i>Janet P. Kelly</i>	
Title: Field Environmental Advisor	Approval Date: <i>8/27/2014</i>	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: November 15, 2013	Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

nJK1423954821

CLIENT: BP **BLAGG ENGINEERING, INC.**
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

API #: 30-045-20447
TANK ID (if applicable): A

FIELD REPORT: (circle one): BGT CONFIRMATION / RELEASE INVESTIGATION **OTHER:**
REMEDIATION SAMPLING

PAGE #: 1 of 1

SITE INFORMATION: SITE NAME: RIDDLE FLS 7
DATE STARTED: 6/12/2013
DATE FINISHED: "

QUAD/UNIT: P SEC: 29 TWP: 28N RING: 9W PM: NM CNTY: SS ST: NM
1/4 -1/4 FOOTAGE: LEASE TYPE: FEDERAL / STATE / FEE / INDIAN
LEASE #: SF 080112 PROD. FORMATION: PC CONTRACTOR: Paul & Son
ENVIRONMENTAL SPECIALIST(S): JCB

REFERENCE POINT: WELL HEAD (WH.) GPS COORD.: 36.62836 x 107.69884 GL ELEV.: 5922

1) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH.: _____
2) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH.: _____
3) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH.: _____
4) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH.: _____

SAMPLING DATA: CHAIN OF CUSTODY RECORD(S) # OR LAB USED: Full OVM READING (ppm): _____

1) SAMPLE ID: <u>BASE 5-PT @ 9'</u>	SAMPLE DATE: <u>6/12/2013</u>	SAMPLE TIME: <u>1425</u>	LAB ANALYSIS: <u>TPH / BTEX / CL</u>	OVM READING (ppm): <u>-</u>
2) SAMPLE ID: <u>SIDEWALL 6-PT @ 6'-9"</u>	SAMPLE DATE: <u>"</u>	SAMPLE TIME: <u>1427</u>	LAB ANALYSIS: <u>"</u>	OVM READING (ppm): <u>-</u>
3) SAMPLE ID: <u>RESIDUAL @ wellhead</u>	SAMPLE DATE: <u>"</u>	SAMPLE TIME: <u>1433</u>	LAB ANALYSIS: <u>"</u>	OVM READING (ppm): <u>-</u>
4) SAMPLE ID: _____	SAMPLE DATE: _____	SAMPLE TIME: _____	LAB ANALYSIS: _____	OVM READING (ppm): _____

SOIL DESCRIPTION: SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL **OTHER** SANDSTONE

SOIL COLOR: _____
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / **HIGHLY COHESIVE**
CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / **VERY DENSE**
MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED
SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS: _____
DISCOLORATION/STAINING OBSERVED: **YES** NO EXPLANATION: Gravel At wellhead

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
HC ODOR DETECTED: **YES** NO EXPLANATION: Strong

ANY AREAS DISPLAYING WETNESS: YES **NO** EXPLANATION: _____
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: **YES** NO EXPLANATION: _____
ADDITIONAL COMMENTS: _____

SOIL IMPACT DIMENSION ESTIMATION: 40 ft X 27 ft X 9 ft EXCAVATION ESTIMATION (Cubic Yards): 300 ±
DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >100 NEAREST SURFACE WATER: <100 NMCCD TPH CLOSURE STD: 1000 ppm

SITE SKETCH PLOT PLAN circle: attached

RESIDUAL AT wellhead.
WELL HEAD
BASE COMPOSITE POINTS
SIDEWALL Composite Points

OVM CALIB. READ. = _____ ppm RF = 0.52
OVM CALIB. GAS = _____ ppm
TIME: _____ am/pm DATE: _____

MISCELL. NOTES

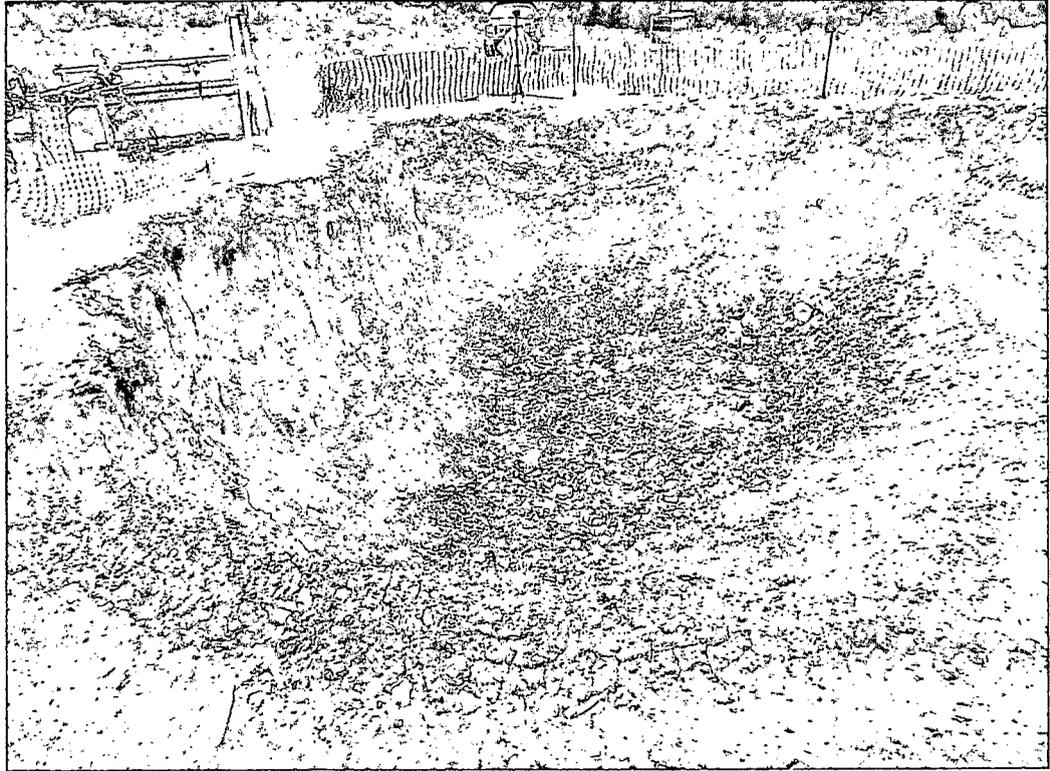
WO: _____
PO #: _____
PK: _____
PJ #: _____
Permit date(s): _____
OCD Appr. date(s): _____

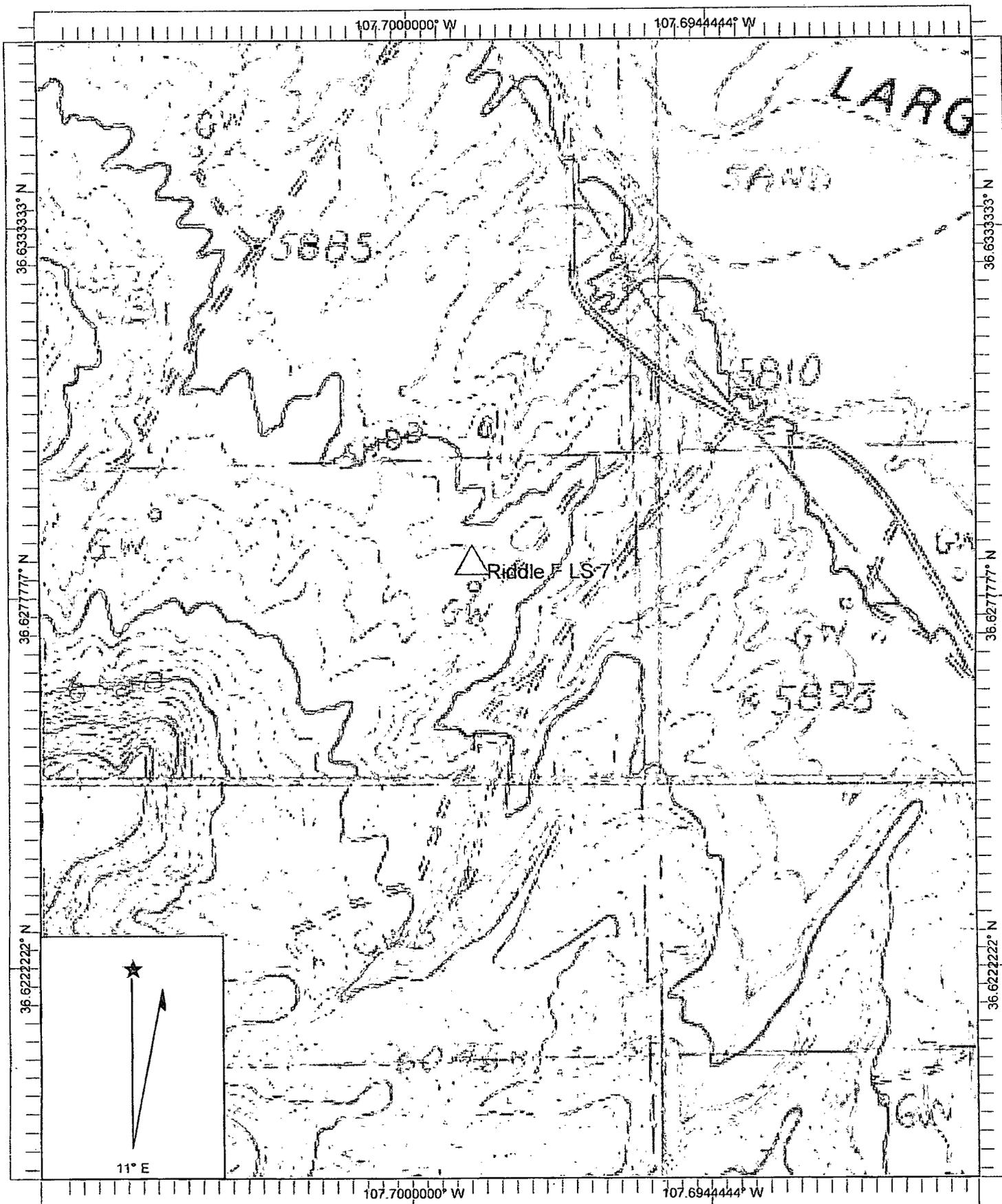
Tank ID	OVM = Organic Vapor Meter ppm = parts per million
BGT Sidewalls Visible:	Y / N
BGT Sidewalls Visible:	Y / N
BGT Sidewalls Visible:	Y / N

Magnetic declination: 10° E

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; -- = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA = NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM

TRAVEL NOTES: CALLOUT: _____ ONSITE: 6/12/2013





Name: CUTTER CANYON
 Date: 6/14/2013
 Scale: 1 inch equals 666 feet

Location: 036.6275992° N 107.6982063° W
 Caption: BP - Riddle F LS 7

CLIENT: <u>BP</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	API #: <u>30-045-20447</u>
		TANK ID (if applicable): <u>A</u>

FIELD REPORT: (circle one) BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER: <u>2ND REMEDIATION SAMPLING</u>	PAGE #: <u>1</u> of <u>1</u>
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SITE INFORMATION:	SITE NAME: <u>RIDDLE F L57</u>	DATE STARTED: <u>7-23-2013</u>
QUAD/UNIT: <u>P SEC: 29 TWP: 28N RNG: 8W PM: NM CNTY: 55 ST: NM</u>		DATE FINISHED: <u> </u>
1/4 -1/4 FOOTAGE: <u> </u>	LEASE TYPE: <u>FEDERAL</u> STATE / FEE / INDIAN	ENVIRONMENTAL SPECIALIST(S): <u>JCB</u>
LEASE #: <u>SF 080112</u>	PROD. FORMATION: <u>PC</u>	CONTRACTOR: <u>PALL x SON</u>

REFERENCE POINT:	WELL HEAD (W.H.) GPS COORD.: <u>36.62836 x 107.69824</u>	GL ELEV.: <u>5922</u>
1) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
2) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
3) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
4) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____

SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <u>HALL</u>	OVM READING (ppm) <u> </u>
1) SAMPLE ID: <u>WELLHEAD WALL 5-7</u>	SAMPLE DATE: <u>7/23/13</u>	SAMPLE TIME: <u>1440</u> LAB ANALYSIS: <u>TPH/BTEX</u>
2) SAMPLE ID: <u>BASE 5-PT @ 9'</u>	SAMPLE DATE: <u> </u>	SAMPLE TIME: <u>1450</u> LAB ANALYSIS: <u> </u>
3) SAMPLE ID: _____	SAMPLE DATE: _____	SAMPLE TIME: _____ LAB ANALYSIS: _____
4) SAMPLE ID: _____	SAMPLE DATE: _____	SAMPLE TIME: _____ LAB ANALYSIS: _____

SOIL DESCRIPTION:	SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER: <u>SANDSTONE</u>
SOIL COLOR: _____	
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE: <u>HIGHLY COHESIVE</u>	PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE: <u> </u>	DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED: <u> </u>	HC ODOR DETECTED: YES / NO: <u>NO</u> EXPLANATION: _____
SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS.: <u> </u>	
DISCOLORATION/STAINING OBSERVED: YES / NO: <u>YES</u> EXPLANATION: <u>wellhead wall only</u>	
ANY AREAS DISPLAYING WETNESS: YES / NO: <u>NO</u> EXPLANATION: _____	
APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO: <u>YES</u> EXPLANATION: _____	
ADDITIONAL COMMENTS: <u>APPLY 3 GALLONS H₂O₂ TO BASE</u>	
SOIL IMPACT DIMENSION ESTIMATION: <u>40</u> ft X <u>27</u> ft X <u>9</u> ft	EXCAVATION ESTIMATION (Cubic Yards): <u>300±</u>
DEPTH TO GROUNDWATER: <u>>100</u>	NEAREST WATER SOURCE: <u>>100</u> NEAREST SURFACE WATER: <u>2100</u> NMCCD TPH CLOSURE STD: <u>1000</u> ppm

SITE SKETCH 	PLOT PLAN circle: <u>attached</u> OVM CALIB. READ. = _____ ppm RF = 0.52 OVM CALIB. GAS = _____ ppm TIME: _____ am/pm DATE: _____ MISCELL. NOTES WO: _____ PO #: _____ PK: _____ PJ #: _____ Permit date(s): _____ OCD Appr. date(s): _____ Tank ID: _____ OVM = Organic Vapor Meter ppm = parts per million BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N Magnetic declination: <u>10° E</u>
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NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; -- = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM	TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>7/23/2013</u>
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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 18, 2013

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

RE: Riddle F LS 7

OrderNo.: 1306530

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/13/2013 for the analyses presented in the following report.

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

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

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

Analytical Report

Lab Order **1306530**

Date Reported: **6/18/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Sidewall 6-Pt @ 6'-8'

Project: Riddle F LS 7

Collection Date: 6/12/2013 2:27:00 PM

Lab ID: 1306530-002

Matrix: MEOH (SOIL)

Received Date: 6/13/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	550	10		mg/Kg	1	6/13/2013 2:15:18 PM	7884
Surr: DNOP	160	63-147	S	%REC	1	6/13/2013 2:15:18 PM	7884
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	150	25		mg/Kg	5	6/13/2013 12:22:40 PM	R11290
Surr: BFB	429	80-120	S	%REC	5	6/13/2013 12:22:40 PM	R11290
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	6/13/2013 12:22:40 PM	R11290
Toluene	ND	0.25		mg/Kg	5	6/13/2013 12:22:40 PM	R11290
Ethylbenzene	ND	0.25		mg/Kg	5	6/13/2013 12:22:40 PM	R11290
Xylenes, Total	ND	0.50		mg/Kg	5	6/13/2013 12:22:40 PM	R11290
Surr: 4-Bromofluorobenzene	114	80-120		%REC	5	6/13/2013 12:22:40 PM	R11290
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	65	30		mg/Kg	20	6/14/2013 3:25:25 PM	7892

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: Residual @ Wellhead @ 5'-7'
 Project: Riddle F LS 7 Collection Date: 6/12/2013 2:33:00 PM
 Lab ID: 1306530-003 Matrix: MEOH (SOIL) Received Date: 6/13/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	3300	100		mg/Kg	10	6/13/2013 3:41:34 PM	7884
Surr: DNOP	0	63-147	S	%REC	10	6/13/2013 3:41:34 PM	7884
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4900	770		mg/Kg	200	6/13/2013 2:17:14 PM	R11290
Surr: BFB	217	80-120	S	%REC	200	6/13/2013 2:17:14 PM	R11290
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	3.5	1.0		mg/Kg	20	6/13/2013 12:51:17 PM	R11290
Toluene	52	1.0		mg/Kg	20	6/13/2013 12:51:17 PM	R11290
Ethylbenzene	26	1.0		mg/Kg	20	6/13/2013 12:51:17 PM	R11290
Xylenes, Total	250	20		mg/Kg	200	6/13/2013 2:17:14 PM	R11290
Surr: 4-Bromofluorobenzene	110	80-120		%REC	200	6/13/2013 2:17:14 PM	R11290
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	6/14/2013 3:37:50 PM	7892

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306530

18-Jun-13

Client: Blagg Engineering

Project: Riddle F LS 7

Sample ID	MB-7892	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	7892	RunNo:	11336					
Prep Date:	6/13/2013	Analysis Date:	6/14/2013	SeqNo:	320267	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-7892	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	7892	RunNo:	11336					
Prep Date:	6/13/2013	Analysis Date:	6/14/2013	SeqNo:	320268	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

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

- 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#: 1306530

18-Jun-13

Client: Blagg Engineering
Project: Riddle F LS 7

Sample ID MB-7884	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 7884		RunNo: 11274							
Prep Date: 6/12/2013	Analysis Date: 6/13/2013		SeqNo: 319035		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	11		10.00		106	63	147			

Sample ID LCS-7884	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 7884		RunNo: 11274							
Prep Date: 6/12/2013	Analysis Date: 6/13/2013		SeqNo: 319036		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	77.1	128			
Surr: DNOP	5.4		5.000		108	63	147			

Sample ID MB-7941	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 7941		RunNo: 11331							
Prep Date: 6/17/2013	Analysis Date: 6/17/2013		SeqNo: 320251		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		89.7	63	147			

Sample ID LCS-7941	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 7941		RunNo: 11331							
Prep Date: 6/17/2013	Analysis Date: 6/17/2013		SeqNo: 320252		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.5	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
- 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#: 1306530

18-Jun-13

Client: Blagg Engineering

Project: Riddle F LS 7

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R11290	RunNo:	11290					
Prep Date:		Analysis Date:	6/13/2013	SeqNo:	319392	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		92.9	80	120			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R11290	RunNo:	11290					
Prep Date:		Analysis Date:	6/13/2013	SeqNo:	319393	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	122	62.6	136			
Surr: BFB	1200		1000		117	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

- 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#: 1306530

18-Jun-13

Client: Blagg Engineering

Project: Riddle F LS 7

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R11290	RunNo:	11290					
Prep Date:		Analysis Date:	6/13/2013	SeqNo:	319458	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	0.97		1.000		97.1	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R11290	RunNo:	11290					
Prep Date:		Analysis Date:	6/13/2013	SeqNo:	319459	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	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

- 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: 1306530

RcptNo: 1

Received by/date: LM 06/13/13

Logged By: **Ashley Gallegos** 6/13/2013 10:00:00 AM *AG*

Completed By: **Ashley Gallegos** 6/13/2013 10:14:19 AM *AG*

Reviewed By: *[Signature]* 06/13/13

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	1.8	Good	Yes			



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

August 01, 2013

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

RE: RIDDLE F LS 7

OrderNo.: 1307C47

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/26/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light-colored background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical ReportLab Order **1307C47**Date Reported: **8/1/2013****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** Wellhead Wall 5'-7'**Project:** RIDDLE F LS 7**Collection Date:** 7/23/2013 2:40:00 PM**Lab ID:** 1307C47-001**Matrix:** SOIL**Received Date:** 7/26/2013 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	970	10		mg/Kg	1	7/31/2013 10:15:08 PM	8598
Surr: DNOP	89.5	63-147		%REC	1	7/31/2013 10:15:08 PM	8598
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	120	24		mg/Kg	5	7/30/2013 7:24:10 PM	8606
Surr: BFB	300	80-120	S	%REC	5	7/30/2013 7:24:10 PM	8606
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.24		mg/Kg	5	7/31/2013 3:19:29 PM	8606
Toluene	ND	0.24		mg/Kg	5	7/31/2013 3:19:29 PM	8606
Ethylbenzene	0.43	0.24		mg/Kg	5	7/31/2013 3:19:29 PM	8606
Xylenes, Total	1.4	0.48		mg/Kg	5	7/31/2013 3:19:29 PM	8606
Surr: 4-Bromofluorobenzene	110	80-120		%REC	5	7/31/2013 3:19:29 PM	8606

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: Base 5-pt @ 9'

Project: RIDDLE F LS 7

Collection Date: 7/23/2013 2:50:00 PM

Lab ID: 1307C47-002

Matrix: SOIL

Received Date: 7/26/2013 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	67	10		mg/Kg	1	8/1/2013 12:03:15 AM	8598
Surr: DNOP	79.0	63-147		%REC	1	8/1/2013 12:03:15 AM	8598
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	30	9.6		mg/Kg	2	7/31/2013 3:49:48 PM	8606
Surr: BFB	168	80-120	S	%REC	2	7/31/2013 3:49:48 PM	8606
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.096		mg/Kg	2	7/31/2013 3:49:48 PM	8606
Toluene	ND	0.096		mg/Kg	2	7/31/2013 3:49:48 PM	8606
Ethylbenzene	ND	0.096		mg/Kg	2	7/31/2013 3:49:48 PM	8606
Xylenes, Total	0.77	0.19		mg/Kg	2	7/31/2013 3:49:48 PM	8606
Surr: 4-Bromofluorobenzene	105	80-120		%REC	2	7/31/2013 3:49:48 PM	8606

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307C47

01-Aug-13

Client: Blagg Engineering

Project: RIDDLE F LS 7

Sample ID	MB-8598	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	8598	RunNo:	12312					
Prep Date:	7/29/2013	Analysis Date:	7/31/2013	SeqNo:	350434	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.4		10.00		73.7	63	147			

Sample ID	LCS-8598	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	8598	RunNo:	12312					
Prep Date:	7/29/2013	Analysis Date:	7/31/2013	SeqNo:	350435	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	77.1	128			
Surr: DNOP	3.5		5.000		70.2	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
- 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#: 1307C47

01-Aug-13

Client: Blagg Engineering

Project: RIDDLE F LS 7

Sample ID MB-8606	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 8606		RunNo: 12278							
Prep Date: 7/29/2013	Analysis Date: 7/30/2013		SeqNo: 349673		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	980		1000		98.4	80	120			

Sample ID LCS-8606	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 8606		RunNo: 12278							
Prep Date: 7/29/2013	Analysis Date: 7/30/2013		SeqNo: 349674		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	119	62.6	136			
Surr: BFB	1100		1000		106	80	120			

Sample ID 1307C47-002AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Base 5-pt @ 9'	Batch ID: 8606		RunNo: 12311							
Prep Date: 7/29/2013	Analysis Date: 7/31/2013		SeqNo: 350666		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	48	9.6	24.11	29.70	76.2	76	156			
Surr: BFB	3100		1929		160	80	120			S

Sample ID 1307C47-002AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Base 5-pt @ 9'	Batch ID: 8606		RunNo: 12311							
Prep Date: 7/29/2013	Analysis Date: 7/31/2013		SeqNo: 350667		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	53	9.6	24.08	29.70	96.8	76	156	9.78	17.7	
Surr: BFB	3300		1927		170	80	120	0	0	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
- 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#: 1307C47

01-Aug-13

Client: Blagg Engineering

Project: RIDDLE F LS 7

Sample ID MB-8606	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 8606		RunNo: 12311							
Prep Date: 7/29/2013	Analysis Date: 7/31/2013		SeqNo: 350683		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		98.6	80	120			

Sample ID LCS-8606	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 8606		RunNo: 12311							
Prep Date: 7/29/2013	Analysis Date: 7/31/2013		SeqNo: 350684		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.2	80	120			
Toluene	0.91	0.050	1.000	0	90.5	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.7	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
- 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: **1307C47**

RcptNo: **1**

Received by/date: AG 07/26/13

Logged By: **Anne Thorne** 7/26/2013 10:10:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 7/29/2013 *Anne Thorne*

Reviewed By: *[Signature]* 7/29/13

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	2.3	Good	Yes			

