

**3R-1011**

**Release Report/ General  
Correspondence**

**Enterprise SJ**

**Date: Apr-Jun 2014**

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: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Hancock B#1A	Facility Type: Well Site

Surface Owner: BLM	Mineral Owner: BLM	API No.
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#### LOCATION OF RELEASE

Unit Letter J	Section 28	Township 28N	Range 9W	Feet from the 1635	North <u>South</u> Line	Feet from the 1604	<u>East</u> West Line	County San Juan
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Latitude 36.6303 Longitude -107.7904

#### NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release: <b>Estimated 214 MCF</b>	Volume Recovered: <b>None</b>
Source of Release: Strong wind blew meter house into drip pot.	Date and Hour of Occurrence: <b>6/8/2014 @ 10:00 a.m.</b>	Date and Hour of Discovery: <b>6/8/2014 @ 2:00 p.m.</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>OIL CONS. DIV DIST. 3</b>	
By Whom?	Date and Hour <b>JUN 20 2014</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken: Enterprise measurement technician found gas blowing from a broken 1/2" drip pot on a meter tube. He immediately shut in and locked out the up and down stream meter tube valves to isolate the leak. The meter house was damaged by strong wind and slid down the meter tube colliding with the drip pot. An estimated 214 MCF gas loss occurred.

Describe Area Affected and Cleanup Action Taken.\* The meter tube was shut in and lock out tag out was applied. The 1/2" drip pot was replaced and the meter tube was returned to service.

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>Jon Fields</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon Fields		Approved by Environmental Specialist: <i>Jonathan D. Kelly</i>	
Title: Director, Field Compliance		Approval Date: <i>9/8/2014</i>	Expiration Date:
E-mail Address: jefields@eprod.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>6-17-2014</i> Phone: (713)381-6684			

\* Attach Additional Sheets If Necessary

*nJR1425735325*

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**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral 3D-4	Facility Type: Natural Gas Gathering Line

Surface Owner: NAPI/Navajo Tribal	Mineral Owner: NAPI/Navajo Tribal	API No.
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**LOCATION OF RELEASE**

Unit Letter J	Section 36	Township 28N	Range 12W	Feet from the 2533	North <del>South</del> Line	Feet from the 1153	<del>East</del> West Line	County San Juan
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Latitude 36.61842 Longitude -108.05799

**NATURE OF RELEASE**

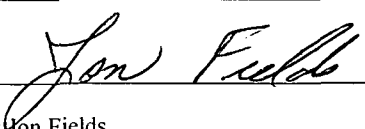
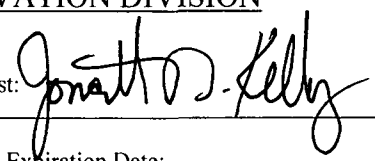
Type of Release: Natural Gas	Volume of Release: <b>Unknown</b>	Volume Recovered: <b>Unknown</b>
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: 6/6/2014 @ 11:15 a.m.	Date and Hour of Discovery: 6/6/2014 @ 12:15 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>OIL CONS. DIV DIST. 3</b>	
By Whom?	Date and Hour <b>JUN 23 2014</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken: Enterprise personal responded to a possible line leak report on lateral 3D-4 a class 1 Non Jurisdictional pipeline. Enterprise personal verified leak, the pipeline blown down and lock out tag out was applied. Repairs and remediation of the release are scheduled for the week of June 16, 2014.

Describe Area Affected and Cleanup Action Taken.\* : Enterprise personal responded to a possible line leak report on lateral 3D-4 a class 1 Non Jurisdictional pipeline. Enterprise personal verified leak, the pipeline blown down and lock out tag out was applied. Repairs and remediation of the release are scheduled for the week of June 16, 2014. A "final" c-141 will be submitted upon receipt of the third party environmental contractor corrective action report.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: <u>9/8/2014</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>6-18-2014</u> Phone: (713)381-6684		

\* Attach Additional Sheets If Necessary

NJK 14 251 32170

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accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long	
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286	
Facility Name: Maxie Federal #J1 Well Tie	Facility Type: Natural Gas Gathering Line	
Surface Owner: BLM	Mineral Owner: BLM	API No.

**LOCATION OF RELEASE**

Unit Letter <b>H</b>	Section <b>24</b>	Township <b>29N</b>	Range <b>12W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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**OIL CONS. DIV DIST. 3**

Latitude **36.714925**

Longitude **-108.044920**

**APR 28 2014**

**NATURE OF RELEASE**

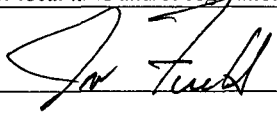
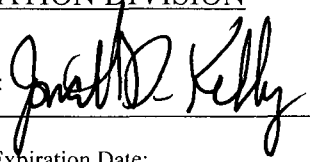
Type of Release: potable water, natural gas liquids	Volume of Release: 65-100 bbls	Volume Recovered: <b>Unknown</b>
Source of Release: Rupture of the pipeline during hydrostatic testing	Date and Hour of Occurrence: <b>2/11/2014 @ 4:00 p.m.</b>	Date and Hour of Discovery: <b>2/11/2014 @ 4:00 p.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>NRC CASE # 1073660, NMOCD - Jonathan Kelly, BLM - Sherrie Langdon</b>	
By Whom? Thomas Long	Date and Hour <b>2/11/2014 @ ~ 1:30 p.m.</b>	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* Approximately 65 to 100 barrels of potable water ran down the dry wash approximately 1000 feet. In addition the well tie had been leaking for an unknown length of time.

Describe Cause of Problem and Remedial Action Taken.\* A release was discovered on the Maxey Federal #J1 well tie during hydrostatic testing. An estimated 65 to 100 barrels of potable water used during the hydrostatic testing was released into a wash. Approximately 1000 feet of wash was affected. In addition the well tie had been leaking for an unknown length of time. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. The remediation activities were completed on February 28, 2014.

Describe Area Affected and Cleanup Action Taken.\* Approximately 1000 feet of wash was affected. In addition the well tie had been leaking for an unknown length of time and an excavation of approximately 48 feet long by 30 feet wide ranging from 4 feet below ground surface (bgs) to eighteen (18) feet bgs. Remediation activities were completed on February 28, 2014. Approximately 800 cubic yards of impacted soil was excavated and transported to a NMOCD approved land farm facility. A third party corrective action report is included with this "final" c-141.

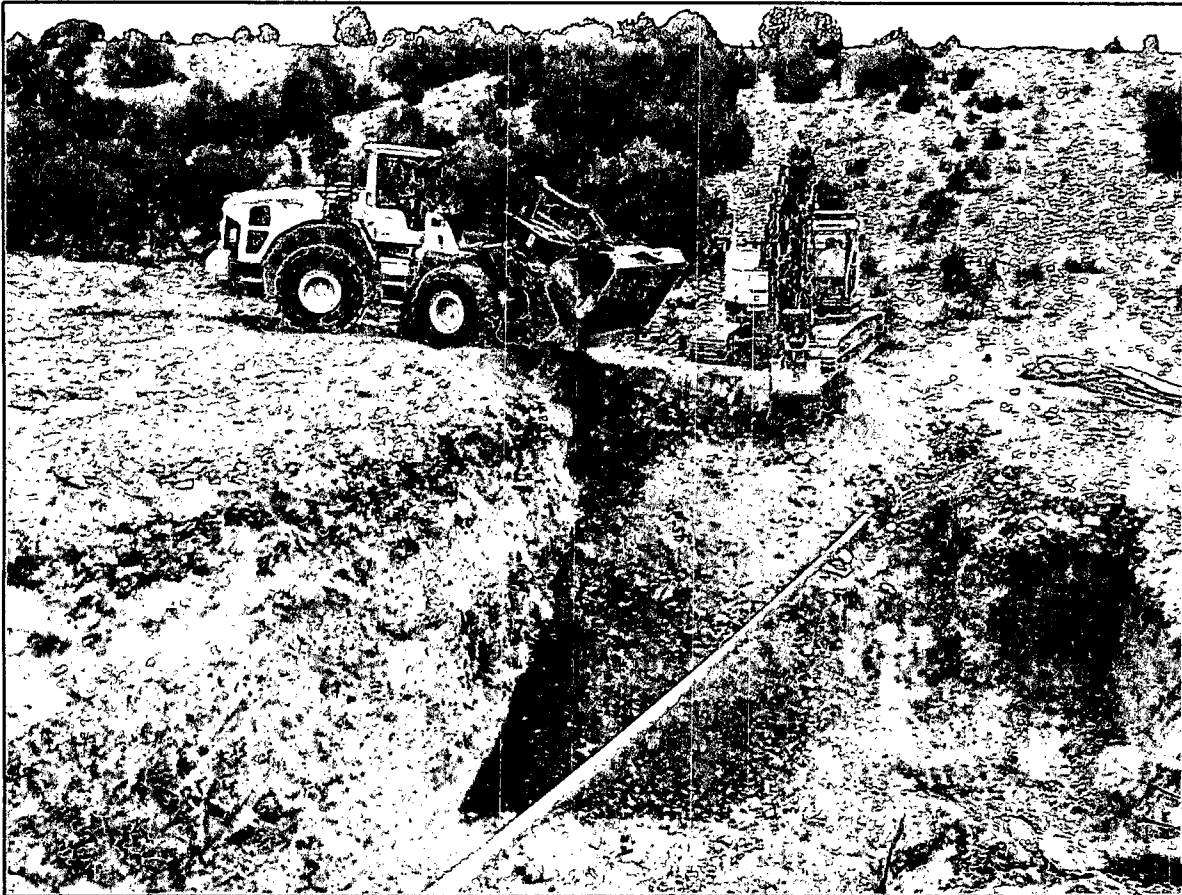
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon Fields	Approved by Environmental Specialist: 	
Title: Director, Field Environmental	Approval Date: <b>9/5/2014</b>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>4-24-14</b>	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

**NJK1424839459**

Enterprise Products  
Maxey Federal #1J  
Latitude North 36.714925, Longitude West -108.044920  
Unit H Section 24 T29 N R12W  
San Juan County, New Mexico  
March 20, 2014



**Submitted To:**

Enterprise Products  
Field Environmental-San Juan Basin  
614 Reilly Avenue  
Farmington, NM 87401

OIL CONS. DIV DIST. 3  
APR 28 2014

**Submitted By:**

Souder, Miller & Associates  
401 West Broadway  
Farmington, NM 87401  
(505) 325-7535



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## 1.0 Executive Summary

On February 11, 12, 18, 19, and 25-28, 2014, Souder, Miller & Associates (SMA) responded to a hydrocarbon release associated with the Maxey Federal #1J pipeline release as the result of a hydrostatic pressure test rupture. The table below summarizes information about the release and remediation activities.

TABLE 1: RELEASE INFORMATION				
Name	Maxey Federal #1J			
Location	Latitude/Longitude		Section, Township, Range	
	36.714925°	-108.044920°	(SE ¼ /NE ¼ ) Unit H Section 24	T 29 N, R 12W
Date Reported	February 11, 2014			
	Thomas Long			
Land Owner	Bureau of Land Management (BLM)			
Reported To	New Mexico Oil Conservation Division (NMOCD), Bureau of Land Management (BLM), National Response Center (NRC)			
Diameter of Pipeline	8 inches			
Source of Release	Hydrostatic testing of pipeline			
Release Contents	Natural Gas/ Produced potable water			
Release Volume: Natural Gas	Unknown			
Release Volume: Produced Potable Water	65 BBLs			
Nearest Waterway	Unnamed Wash			
Depth to Groundwater	>50, <100 feet			
Nearest Domestic Water Source	Greater than 1,000 feet			
NMOCD Ranking	30			
SMA Response Dates	2/11/2014, 2/12/2014, 2/18/2014, 2/19/2014, 2/25-28/2014			
Subcontractors	West States Energy Contractors (WSEC)			
Disposal Facility	Industrial Ecosystems Inc. (IEI)			
Yd <sup>3</sup> Contaminated Soil Excavated and Disposed	800 yd <sup>3</sup>			

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## 2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of a hydrocarbon release associated with the 8-inch pipeline release. The release was the result of hydrostatic testing was being performed on the Maxey Federal #1J pipeline. An unknown amount of natural gas and approximately 65 BBLs of potable water that was used during hydrostatic testing was released. The released potable water traveled approximately 1200 feet downstream of the unnamed tributary. The release was reported February 11, 2014 and was located in (SE/NE) Unit H, Section 24, Township 29 North, Range 12 West, 36.714925°, -108.044920°, San Juan County, New Mexico. Figure 1, Vicinity Map, illustrates the location of the release.

## 3.0 Site Ranking and Land Jurisdiction

The release site is located in an unnamed wash that flows into another, larger unnamed wash, approximately 2,300 feet west of the site. The site is on BLM land, with an elevation of approximately 5,624 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be between 50 and 99 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well data base for water wells in the vicinity of the release. No wells were located within 1,000 feet of the site. Twenty-nine wells were located within a 1-mile radius of the site, but there is no anticipated impact to these wells.

The physical location of this release is within the jurisdiction of NMOCD on land managed by the BLM. This release location has been assigned a NMOCD ranking of 30 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm total benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

## 4.0 Summary of Field Activities

On February 11, 12, 18, 19, and 25-28, 2014, SMA mobilized to the release site to oversee excavation activities and to delineate the release area through field screening using a calibrated photoionization detector (PID). On February 11 and 12, 2014, initial field screening was conducted on soil samples. Additionally, soil and water samples were collected for laboratory analysis to better characterize the site. Due to high concentrations of benzene vapor on February 18, excavation activities were stopped and recommenced on February 19. Under the supervision of Enterprise, WSEC repaired the pipeline on February 18 and 19. During the excavation, soil samples were collected for field screening



to determine the extent of the release. On February 25-28, SMA directed WSEC during the excavation of the hydrocarbon impacted soil. During this three day period of the excavation, the sidewalls and base of the excavation were allowed to aerate. The final soil samples submitted for laboratory analysis were collected approximately 1-2 feet below ground surface (bgs). Samples were collected from the impacted tributary bottom at a depth of approximately 8 inches below the surface for laboratory analysis. Tables 3 summarize the field screening results. Field notes for these events are included in Appendix A.

The final excavation covered approximately 1,940 square feet, measuring approximately 48 feet long by 30 feet wide in one section, and 12 feet long by 42 feet wide in the other section. Excavation depths ranged from approximately 4 to 18 feet (bgs). Field screening of the excavated material determined that the soils removed were not suitable for use as backfill material. Approximately 800 cubic yards of impacted soil was transported to Industrial Ecosystems Incorporated Landfarm on Crouch Mesa, near Bloomfield, New Mexico for disposal. A certificate of waste is included in Appendix C.

All laboratory soil samples were field screened with a calibrated PID and submitted for laboratory analysis per United States Environmental Protection Agency Method 8021 BTEX, 8015 Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) and 300 Chloride Anions to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico. Figure 3 illustrates the extent of the excavation and laboratory results.

## 5.0 Conclusions and Recommendations

As noted in Section 3.0 of this report, NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 30: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH. Laboratory analysis detected DRO in samples SC-48 (15 ppm), Wash # 1 (11ppm), Wash # 2 (64 ppm) and Wash # 3 (14 ppm). All of the final laboratory results reported below the NMOCD Guideline standards based on the site ranking. For all remaining samples, laboratory analysis of the excavation detected benzene, total BTEX, and TPH (GRO/DRO) at concentrations below the laboratory reporting limits. The impacted soil was hauled off site for disposal. Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analysis is included in Table 4. Laboratory reports are included in Appendix D.

SMA recommends no further action at this site.

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## 6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment and stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices.

If there are any questions regarding this report, please contact either Steve Moskal or Reid Allan at 505-325-7535.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

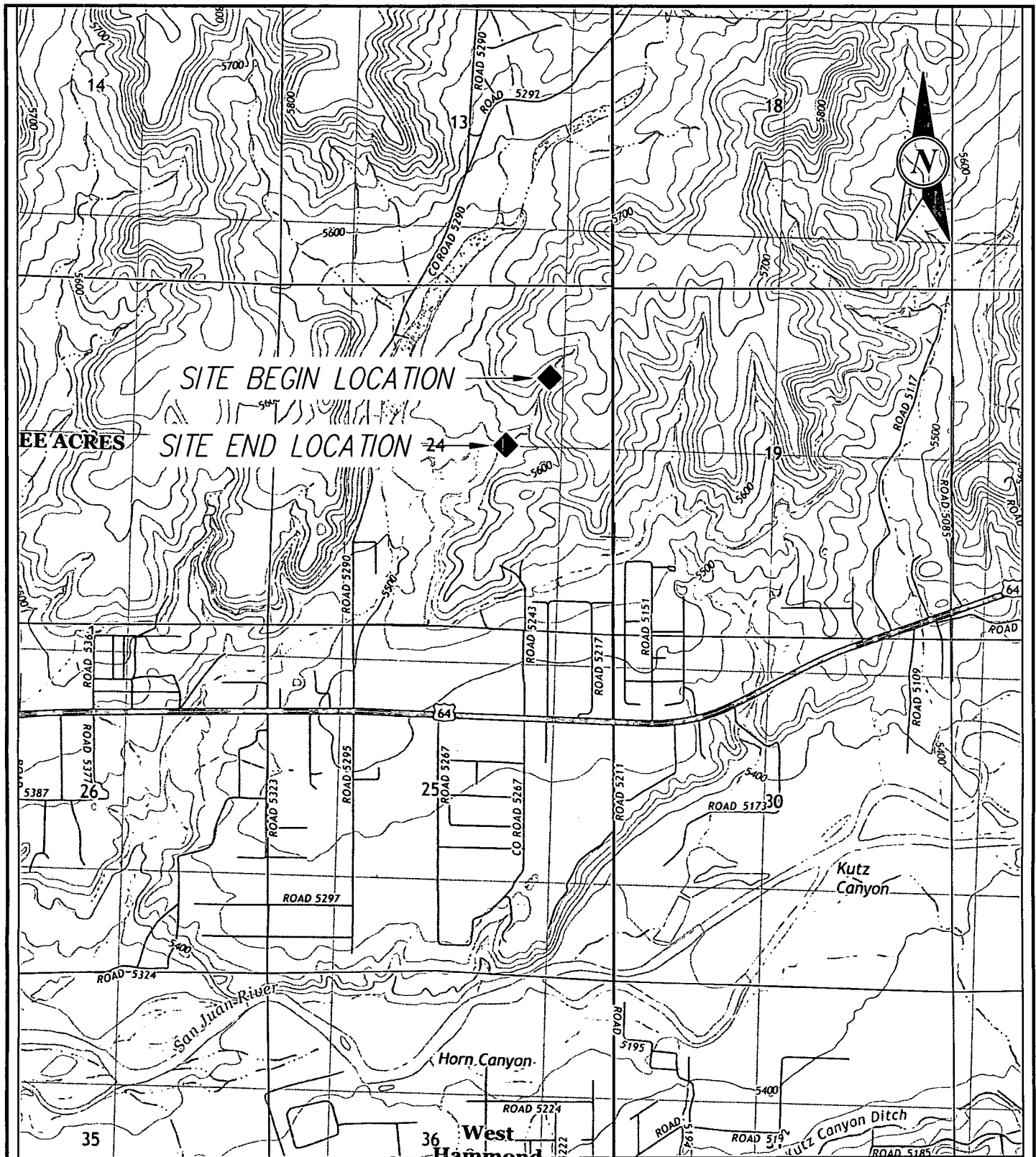


Steve Moskal  
Project Scientist



Reid S. Allan, PG  
Principal Scientist

## FIGURES



SCALE

0' 1000' 2000' 4000'



**SOUDER, MILLER & ASSOCIATES**  
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FARMINGTON, NM 87401  
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ENTERPRISE

FARMINGTON, NEW MEXICO

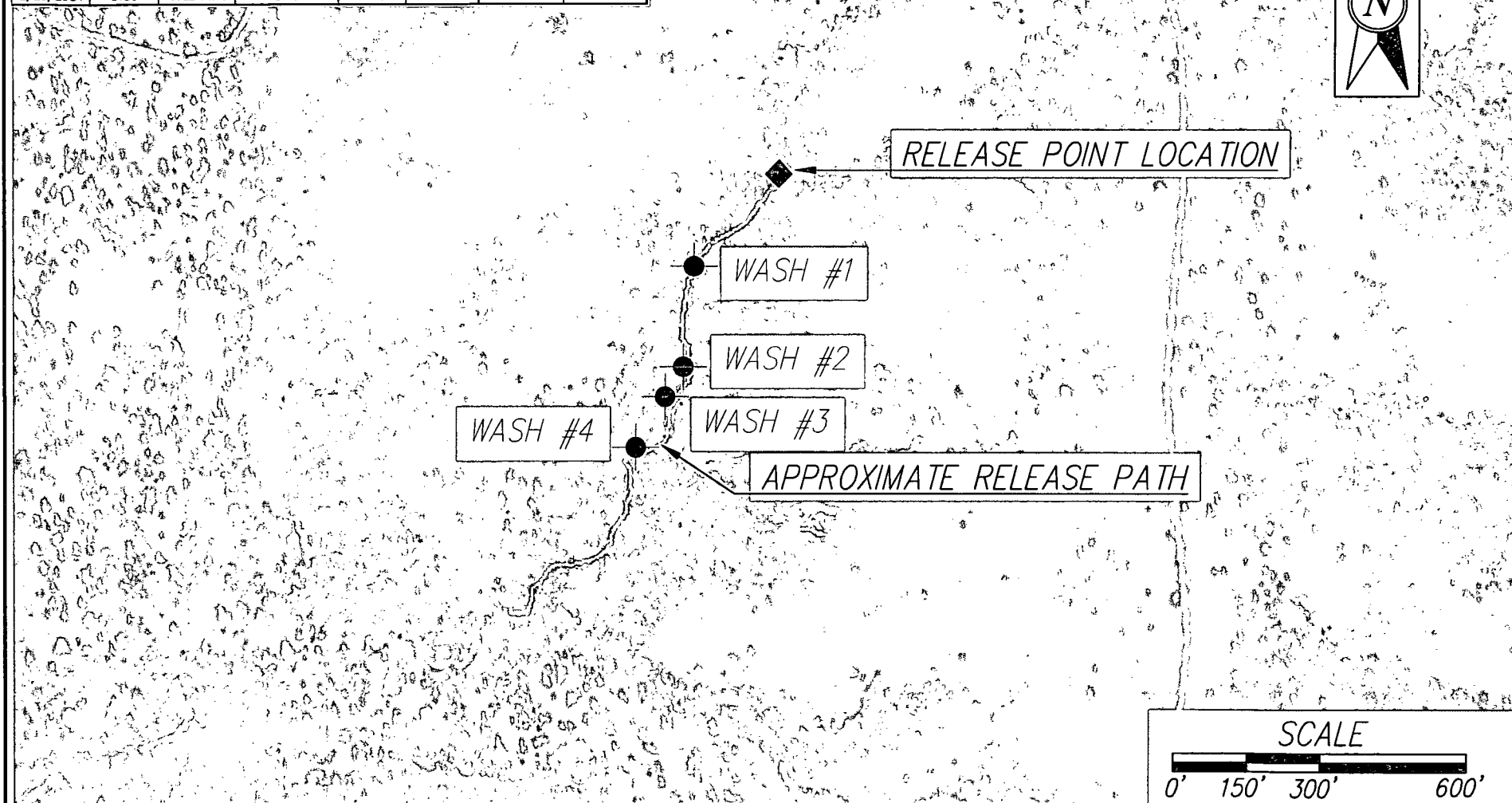
Designed SM	Drawn DJB	Checked RSA
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Date:	3/20/2014
Scale:	Horiz: 1"=2000' Vert: N/A
Project No:	5122855
Sheet:	1

**VICINITY MAP**  
**MAXEY FEDERAL #1J**  
**SECTION 24, T29N, R12W**

SAN JUAN COUNTY, NEW MEXICO

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
NMOCD Guidelines		NMOCD Site Ranking: 30		100 ppm		10 ppm	50 ppm
2/26/2014	1:10	Wash # 1	0.75	<4.6	11.0	<0.046	<0.093
2/26/2014	1:16	Wash # 2	0.5	<4.8	64.0	<0.048	<0.096
2/26/2014	3:00	Wash # 3	0.75	<4.9	14.0	<0.049	<0.098
2/26/2014	3:10	Wash # 4	0.75	<4.8	<10.0	<0.048	<0.095



**SOUDER, MILLER & ASSOCIATES**  
401 W. BROADWAY  
FARMINGTON, NM 87401

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ENTERPRISE

FARMINGTON, NEW MEXICO

**SITE LOCATION AND DOWNSTREAM SAMPLE LOCATIONS MAP**  
**MAXEY FEDERAL #1J**  
**SECTION 24, T29N, R12W**

SAN JUAN COUNTY, NEW MEXICO

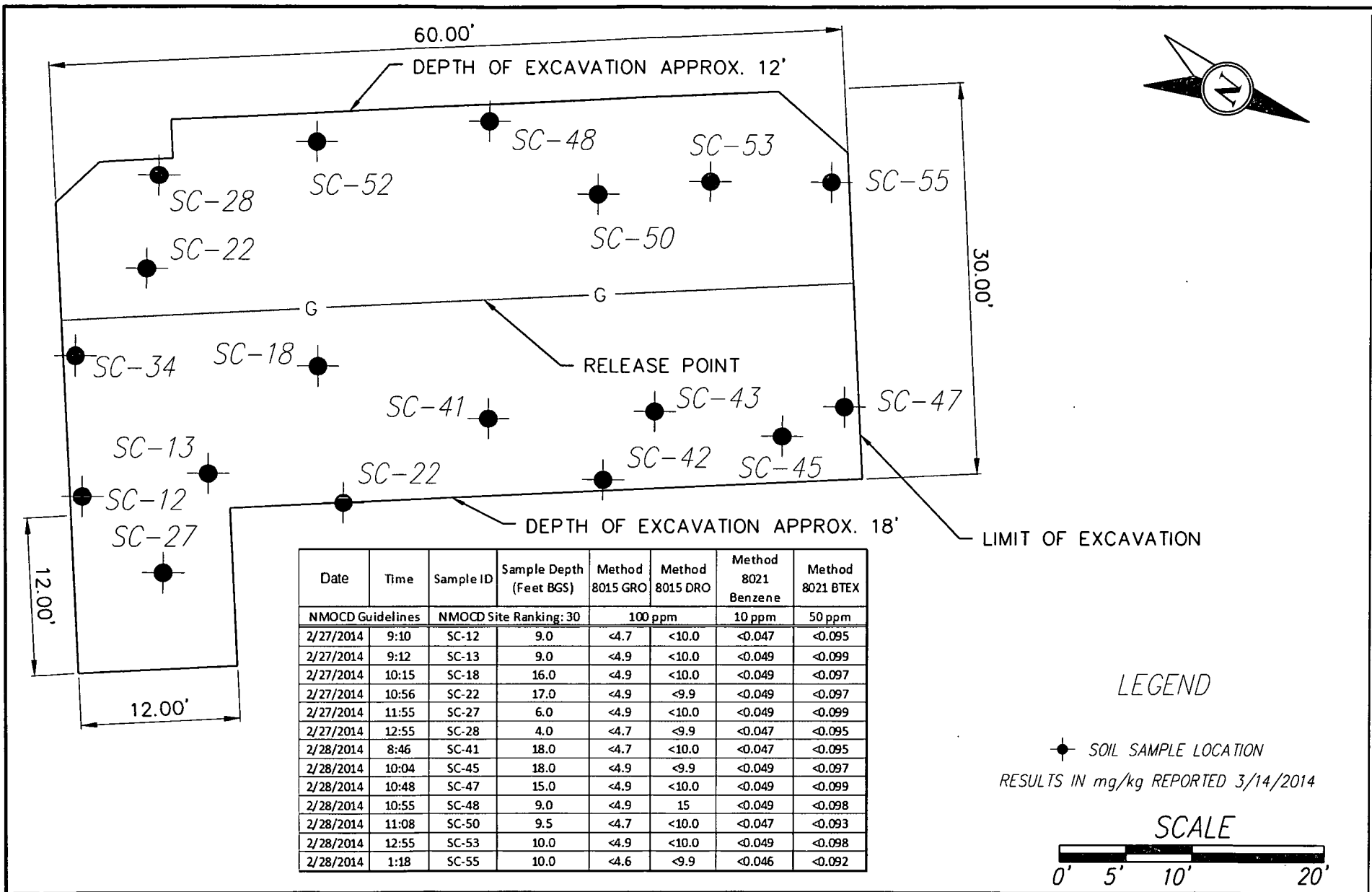
Designed SM	Drawn GJF	Checked RSA
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Date: 3/20/2014

Scale: Horiz: 1"=200'  
Vert: N/A

Project No: 5122855

Sheet: 2



 <p><b>SMA</b> Engineering Environmental Surveying</p>	<p><b>SOUDER, MILLER &amp; ASSOCIATES</b> 401 W. BROADWAY FARMINGTON, NM 87401 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 325-0045 www.soudermiller.com Serving the Southwest &amp; Rocky Mountains Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM • El Paso, TX Cedar • Grand Junction • Montrose, CO • Salt Lake, AZ • Moab, UT</p>	ENTERPRISE	FARMINGTON, NEW MEXICO	Designed SM	Drawn DJB	Checked RSA	
		<p><b>SOIL CONTAMINANT CONCENTRATION MAP</b> <b>MAXEY FEDERAL #1J</b> <b>SECTION 24, T29N, R12W</b></p>			Date: 3/20/2014		
					Scale: Horiz: 1"=20' Vert: N/A		
		SAN JUAN COUNTY, NEW MEXICO			Project No: 5122855		
			Sheet: 3				

## **TABLES**

Enterprise Products  
Table 2: Site Ranking

Maxey Federal #1J  
Pipeline Release  
3/20/2014

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20		Verified using Google Earth and Topo maps; Field verified	Groundwater is assumed to be between 50 and 99 feet below ground surface.
50' to 99' = 10	10		
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20	20	Verified using Google Earth and Topo maps; Field verified	Release is located in an unnamed wash that flows into a larger unnamed wash 2,300 feet west of the site.
200' - 1000' = 10			
>1000' = 0			
Ranking Criteria for Horizontal Distance to a Water Well or Water Source	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
<1000' from a water source? <200' from a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0		New Mexico State Engineer's Office online water well data base	29 recorded water wells within a 1 mile radius. No water wells within 1,000 feet or 200 feet.
	0		
<b>Total Site Ranking</b>	<b>30</b>		
<b>Soil Remedation Standards</b>	<b>0 to 9</b>	<b>10 to 19</b>	<b>&gt;19</b>
<b>Benzene</b>	<b>10 PPM</b>	<b>10 PPM</b>	<b>10 PPM</b>
<b>BTEX</b>	<b>50 PPM</b>	<b>50 PPM</b>	<b>50 PPM</b>
<b>TPH</b>	<b>5000 PPM</b>	<b>1000 PPM</b>	<b>100 PPM</b>





Enterprise Productions  
Table 3: Summary of Excavation Field Screening Results

Maxey Federal #1J  
Pipeline Release  
3/20/2014

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Reading	Lab Sample Collected Y/N
2/12/2014	8:55	# 1: 36.71493, 108.04497	0	1708.0	Y
2/12/2014	9:05	# 2: 36.71466, 108.04517	0	519.0	Y
2/12/2014	9:12	# 3: 36.71443, 108.04550	0	244.0	Y
2/12/2014	9:17	# 4: 36.71402, 108.04560	0	592.0	Y
2/12/2014	9:23	# 5: 36.71370, 108.04570	0	46.3	Y
2/12/2014	9:28	# 6: 36.71336, 108.04583	0	42.7	Y
2/12/2014	9:34	# 7: 36.71302, 108.04595	0	51.4	Y
2/12/2014	9:41	# 8: 36.71265, 108.04617	0	29.7	Y
2/12/2014	9:48	# 9: 36.71261, 108.04659	0	21.3	Y
2/12/2014	9:54	# 10: 36.71244, 108.04691	0	11.1	Y
2/12/2014	10:14	# 11: Background	0	7.5	Y
2/18/2014	13:52	SC-1 S Stockpile	0.0-0.5	>8,000	N
2/18/2014	13:54	SC-2 E Stockpile	0.0-0.5	>10,000	N
2/19/2014	13:32	SC 1: N End Stockpile	0-0.5	1780.0	N
2/19/2014	13:35	SC 2: Mid Stockpile	0-0.5	> 10,000	N
2/19/2014	13:32	SC 3: S End Stockpile	0-0.5	325.0	N
2/19/2014	13:43	SC 4: N Wall	4.0-6.0	63.8	N
2/19/2014	13:50	SC 5: NE Wall	4.0-6.0	334.0	N
2/19/2014	13:55	SC 6: SE Wall	4.0-6.0	>10,000	N
2/19/2014	14:18	SC 7: N Bottom	6.0	>10,000	N
2/19/2014	14:20	SC 8: S Bottom	6.0	>10,000	N
2/19/2014	14:55	SC: 9 SW Wall	4.0-6.0	1013.0	N
2/19/2014	14:55	SC 10: Wash # 1	0.75	75.1	N
2/19/2014	14:50	SC 11: Wash # 2	0.75	41.1	N
2/19/2014	14:50	SC 12: NW Wall	4.0-6.0	820.0	N
2/19/2014	15:00	SC 13: S Wall	4.0-6.0	118.0	N
2/19/2014	13:32	N. End Stockpile	0	1780.0	N
2/25/2014	14:10	SC-1 SE Wall	4.0-6.0	632.0	N
2/25/2014	14:19	SC-2 NE Wall	4.0-6.0	>10,000	N
2/25/2014	14:24	SC-3 NW Wall	4.0-6.0	1500.0	N
2/25/2014	14:30	SC-4 SW Wall	4.0-6.0	2060.0	N
2/25/2014	14:35	SC-5 Bottom	6	>10,000	N
2/25/2014	14:45	SC-6 Stockpile	0.0-0.5	3400.0	N
2/26/2014	13:10	Wash # 1 108.04543W, 36.71450N	0.75	62.0	N
2/26/2014	13:16	Wash # 2 108.04559W, 36.71407N	0.5	65.6	N
2/26/2014	15:00	Wash # 3 108.04572W, 36.71364N	0.75	8.1	N
2/26/2014	15:10	Wash # 4 108.049595W, 36.71331N	0.75	12.9	N
2/26/2014	10:17	S-1 Stockpile East of Relwase	0.0	11.9	N
2/26/2014	10:50	S-2 SE Wall	4.0	10.8	N



Table 3: Summary of Excavation Field Screening Results

Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Reading	Lab Sample Collected Y/N
2/26/2014	11:00	S-3 SW Wall	3.0	27.0	N
2/26/2014	11:07	S-4 South Base	6.0	70.2	N
2/26/2014	12:20	S-5 SE Wall cut to Row limit	3.0-6.0	591.2	N
2/26/2014	12:25	S-6 Floor SW Composite	6.0	1295.0	N
2/26/2014	12:45	S-7 South End of Cut	2.0-4.0	43.0	N
2/26/2014	13:27	S-8 SE Wall Newcut	3.0-5.0	245.0	N
2/26/2014	13:29	S-9 Floor 4' NE End	4.0	58.8	N
2/26/2014	14:05	S-10 SE Wall cut @ 21'	5.0	225.0	N
2/26/2014	14:35	S-11 SE Wall cut @ 28'	3.0-5.0	30.2	N
2/27/2014	9:10	SC-12 SE Wall	9.0	62.1	N
2/27/2014	9:12	SC-13 SE floor	9.0	7.2	Y
2/27/2014	9:15	SC-14 SE Corner, N Wall	9.0	582.7	N
2/27/2014	9:19	SC-15 SE Corner W. Wall	9.0	73.8	N
2/27/2014	9:50	SC-16 E floor of pipeline	7.0	4068.0	N
2/27/2014	9:56	SC-17 E floor of pipeline	9.0	670.2	N
2/27/2014	10:15	SC-18 E floor of pipeline	16.0	53.7	N
2/27/2014	10:37	SC-19 E floor of pipeline mid	14.0	4470.0	N
2/27/2014	10:44	SC-20 E floor of pipeline mid	16.0	853.6	N
2/27/2014	10:55	SC-21 E floor of pipeline mid	17.0	102.6	N
2/27/2014	10:56	SC-22 E wall E. of pipeline 25' from S	17.0	22.8	Y
2/27/2014	11:15	SC-23 N Wall, E of pipeline 25' from S.	8.0	79.7	N
2/27/2014	11:22	SC-24 N End, under pipeline E of pipeline 35' from S	6.0	2006.0	N
2/27/2014	11:38	SC-25 N wall, E of pipeline 55' from S	8.0	499.8	N
2/27/2014	11:50	SC-26 N Wall, E of pipeline 60' from S	12.0	528.6	N
2/27/2014	11:55	SC-27 SE excavation	6.0	2.4	Y
2/27/2014	12:55	SC-28 W Bench 10' from S	4.0	28.2	Y
2/27/2014	12:58	SC-29 W Bench 30' from S	4.0	3557.0	N
2/27/2014	13:21	SC-30 W Bench 20' from S	6.0	47.8	N
2/27/2014	13:45	SC-31 W Bench W. Wall, 20' from S	6.0	98.5	N
2/27/2014	13:58	SC-32 W Bench 30' from S	8.0	54.3	N
2/27/2014	14:14	SC-33 W. Wall 12' W of pipeline, 20' from S Wall	12.0	228.3	N
2/27/2014	14:20	SC-34 S Wall, E of pipeline	14.0	3.1	Y
2/27/2014	14:28	SC-35 W Base 15' W of pipeline	9.0	190.1	N
2/27/2014	14:30	SC-36 W Wall, 15' W of pipeline	10.0	120.4	N



Enterprise Productions  
Table 3: Summary of Excavation Field Screening Results

Maxey Federal #1J  
Pipeline Release  
3/20/2014

Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Reading	Lab Sample Collected Y/N
2/27/2014	14:41	SC-37 W Base 15' from pipeline	10.0	82.8	N
2/27/2014	14:45	SC-38 W Wall 15' from pipeline	10.0	148.4	N
2/27/2014	15:05	SC-39 E Base @ RP	17.0	767.4	N
2/27/2014	8:15	SC-40 E Floor	18.0	530.6	N
2/27/2014	8:46	SC-41 E floor (S)	18.0	27.2	Y
2/27/2014	9:00	SC-42 Sidewall	18.0	234.7	Y
2/27/2014	9:30	SC-43 E floor (N)	18.0	26.3	Y
2/27/2014	9:59	SC-44 NE sidewall	0.0-18.0	832.8	N
2/27/2014	10:04	SC-45 E floor ( 50' from S Wall)	18.0	39.3	Y
2/27/2014	10:30	SC-46 N Wall 50' from E Wall	18.0	83.4	N
2/27/2014	10:48	SC-47 NE Wall 55' from S Wall	15.0	51.8	Y
2/27/2014	10:55	SC-48 W Wall 15' out from center of pipeline	9.0	33.9	Y
2/27/2014	10:57	SC-49 W Base 15' out from center of pipeline	9.0	164.1	N
2/27/2014	11:08	SC-50 W Base 15' from pipeline, near center of pipeline	9.5	44.8	Y
2/27/2014	11:35	SC-51 W Base 15' from pipeline, 8' E of center	9.0	153.1	N
2/27/2014	11:47	SC-52 W Base 15' from pipeline 8' E of center	10.0	92.7	Y
2/28/2014	12:55	SC-53 W Base 15' W of pipeline 15' N of center	10.0	34.8	Y
2/28/2014	12:57	SC-54 NW Wall 55' N	11.0	59.2	N
2/28/2014	13:18	SC-55 NW Wall Near pipeline	10.0	56.6	Y



Enterprise Products  
Table 4: Summary of Laboratory Analysis  
Results in mg/Kg

Maxey Federal #1J  
Pipeline Release  
3/20/2014

Date	Time	Sample ID	Sample Depth ( Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
NMOCD Guidelines		NMOCD Site Ranking: 30		100 ppm		10 ppm	50 ppm
2/26/2014	1:10	Wash # 1	0.75	<4.6	11.0	<0.046	<0.093
2/26/2014	1:16	Wash # 2	0.5	<4.8	64.0	<0.048	<0.096
2/26/2014	3:00	Wash # 3	0.75	<4.9	14.0	<0.049	<0.098
2/26/2014	3:10	Wash # 4	0.75	<4.8	<10.0	<0.048	<0.095
2/27/2014	9:10	SC-12	9.0	<4.7	<10.0	<0.047	<0.095
2/27/2014	9:12	SC-13	9.0	<4.9	<10.0	<0.049	<0.099
2/27/2014	10:15	SC-18	16.0	<4.9	<10.0	<0.049	<0.097
2/27/2014	10:56	SC-22	17.0	<4.9	<9.9	<0.049	<0.097
2/27/2014	11:55	SC-27	6.0	<4.9	<10.0	<0.049	<0.099
2/27/2014	12:55	SC-28	4.0	<4.7	<9.9	<0.047	<0.095
2/28/2014	8:46	SC-41	18.0	<4.7	<10.0	<0.047	<0.095
2/28/2014	10:04	SC-45	18.0	<4.9	<9.9	<0.049	<0.097
2/28/2014	10:48	SC-47	15.0	<4.9	<10.0	<0.049	<0.099
2/28/2014	10:55	SC-48	9.0	<4.9	15	<0.049	<0.098
2/28/2014	11:08	SC-50	9.5	<4.7	<10.0	<0.047	<0.093
2/28/2014	12:55	SC-53	10.0	<4.9	<10.0	<0.049	<0.098
2/28/2014	1:18	SC-55	10.0	<4.6	<9.9	<0.046	<0.092



Enterprise Productions  
Table 5: Site Characterization Initial Screening

Maxey Federal #1J  
Pipeline Release  
3/20/2014

Sample Type	Date	Time	Sample ID	GRO	DRO	Benzene	BTEX	Mercury	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
				Method 8015 (mg/L)		Method 8021 (u g/kg)		Method 7470 (mg/L)	Method 6010 (mg/L)						
Matrix:	2/11/14	15:55	Pool # 1	32	4.6	5,100	15,750	0.0034	<0.02	0.42	<0.0020	0.013	0.0097	<0.05	<0.005
Aqueous	2/11/14	16:15	Pool # 2	0.82	2.7	6	64.9	<0.0002	<0.020	0.1	<0.0020	<0.0060	<0.0050	<0.050	<0.0050
				Method 8015 (mg/kg)		Method 8021 (mg/kg)		Method 7470 (mg/kg)	Method 6010 (mg/kg)						
NMOCD Guidelines: Site Ranking 30				100		10	50								
Matrix: Soil	2/12/14	8:55	# 1	580.0	530.0	<1.7	57.2	0.19	<5.0	44	<0.20	2.2	2	<5.0	<0.50
	2/12/14	9:05	# 2	120.0	47.0	<0.18	3.54	<0.032	<2.5	49	<0.10	1.1	1.5	<2.5	<0.25
	2/12/14	9:12	# 3	35.0	230.0	<0.070	3.23	0.034	<2.5	42	<0.099	1.8	1.2	<2.5	<0.25
	2/12/14	9:17	# 4	160.0	66.0	<0.18	7.58	0.11	3.5	39	<0.10	2.7	1.9	<2.5	<0.25
	2/12/14	9:23	# 5	27.0	85.0	<0.18	<0.36	0.054	<2.6	64	<0.10	1.6	2.4	<2.6	<0.26
	2/12/14	9:28	# 6	33.0	170.0	<0.036	0.35	0.055	<2.4	61	<0.097	2	1.6	<2.4	<0.24
	2/12/14	9:34	# 7	<3.8	17.0	<0.038	<0.076	<0.033	<2.6	160	<0.10	1.2	1.4	<2.6	<0.26
	2/12/14	9:41	# 8	<4.4	27.0	<0.044	<0.088	<0.034	<2.6	120	<0.10	2.4	2.1	<2.6	<0.26
	2/12/14	9:48	# 9	<4.1	<10.0	<0.041	<0.082	<0.035	<2.4	150	<0.096	1.2	2.3	<2.4	<0.24
	2/12/14	9:54	# 10	<3.7	<9.9	<0.037	<0.074	<0.033	<2.5	140	<0.098	1.1	1.4	<2.5	<0.25
	2/12/14	10:14	# 11	<3.9	12	<0.039	<0.079	<0.033	<2.6	86	<0.10	2.6	3.3	<2.6	0.26



**APPENDIX A**  
**FIELD NOTES**

## Release Information

<b>Name</b>	Lateral 3B-23 (Maxey Fed 1-2)
<b>Location</b>	<b>Latitude/Longitude</b>
	<b>Section, Township, Range</b>
<b>Reported To</b>	Tom Long
<b>Area Supervisor</b>	Jim Thornton
<b>Diameter of Pipeline</b>	8"
<b>Source of Release</b>	Leaking line from hydrostatic testing
<b>Release Contents</b>	Nat gas, Produced water
<b>Release Volume</b>	
<b>Subcontractor</b>	
<b>Disposal Facility</b>	
<b>Yd<sup>3</sup> Contam. Soil</b>	
<b>PO/WO/AFE</b>	

**Notes:**

# Field Screening

Location Name					Date
3B-23					2-18-14
Location Name	Description	Depth (Feet BGS)	Time Collected	Time Screened	PID Reading (ppm)
N. End Stockpile	→	—	1332	1401	1780
3B-23 Excavation	Mid Stockpile	—	1335	<del>1401</del> 1401	710,000
	S. End Stockpile	—	1332	1402	325
	N. Wall	4-6	1343	1406	63.8
	NE Wall	4-6	1350	1408	339
	SE Wall	4-6	1355	1409	710,000
	<del>S wall</del>	4-6	1401	<del>1429</del> 1429	96.2
	<del>SW wall</del>	4-6	1404	1421	44.60
	<del>NW wall</del>	4-6	1412	1426	31.5 36.40
	N Bulkhead	6	1418	1442	710,000
	S Bulkhead	6	1420	1442	710,000
	SW Wall	4-6	1455	1519	1013
	Wash #2 (~80')	8"	1455	1521	75.1

Wash #1 (~40')

8"

1450

1523

41.1

NW wall

4-6

1450

1524

820

S wall

4-6

1500

1526

118

\* Samples were re-collected and screened due to broken sample bags



SUBJECT 3B-23

PROJECT

PAGE

CLIENT EPCODATE 2-18-14BY 1320

CHECKED

BY

Arrive onsite @ 1320

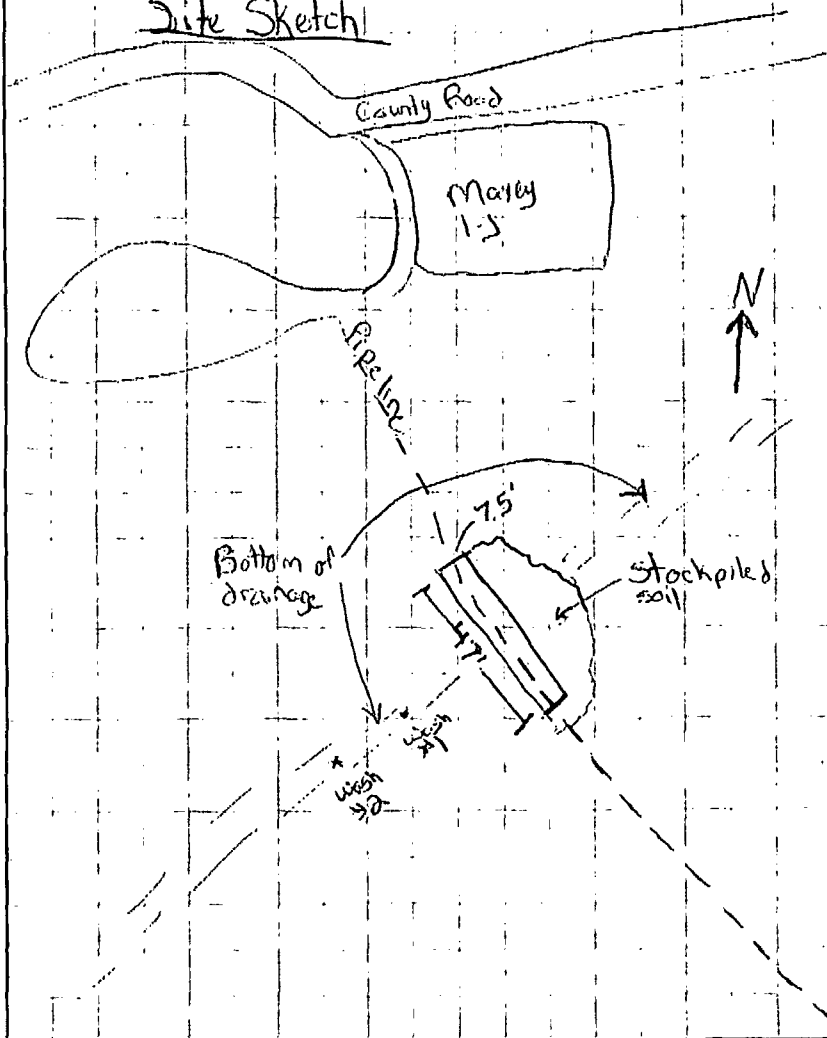
- Backhoe has exposed pipe stockpiled on E side
- Benzene levels too high no access to excavation
- Screening S side of pipe only

OCD has suggested to let excavation air out

Sample #1 (S)	78000ppm	1352
Sample #2 (E)	710,000ppm	1354

2/19/14 47' x 7.5' 4-ft deep

Site Sketch



SOUDER, MILLER &amp; ASSOCIATES

Serving — New Mexico • Colorado • Arizona • Utah

RCL - 1007805

2/11/14

CHECKED

BY

Caterail 3B-23

Assoc. Maxey Fecl. 1-J

- on site @ 1530

Release point

- collect V.O.A.s & Metals (H<sub>2</sub>O)

Upstream location #1 36° 42' 54" -108° 2' 42" 555

36° 42' 54" -108° 2' 42" 555

Downstream location #2 36° 42' 46" -108° 2' 47" 165

End of water saturation @ 36° 43' 41" -108° 2' 58" 42' 45" " " 47"

off site @ 1725

2/12/14

- on site @ 0815, Tailgate Safety, Calibrate PID

Jon. th... Tailg on site @ 0800

- Begin Soil Sampling

PID picking up background

≈ 3.8 ppm

PID ≈ 57°F

GPS#

15	Location #1	36.711493	108.044917	0855	1708 ppm	020
16	#2	36.711466	108.04517	0905	519 ppm	1021
17	#3	36.711493	108.04550	0912	249 ppm	1021
18	#4	36.711402	108.04560	0917	592 ppm	1023
19	#5	36.71370	108.04570	0923	46.3 ppm	1024
20	#6	36.71336	108.04583	0928	52.7 ppm	1025
21	#7	36.71302	108.04595	0934	51.4 ppm	1026
22	#8	36.71265	108.04617	0941	29.7 ppm	1027
23	#9	36.71261	108.04659	0948	21.3 ppm	1028
24	#10	36.71244	108.04691	0954	11.1 ppm	1029
25	End	36.71246	108.04669			
26	Background	36.71488	108.04459	1014	7.5 ppm	

off site @ 1100

SUBJECT EPCO Marcy Federal #15

PROJECT

PAGE

CLIENT

DATE

BY Alicia Peterson2/25

CHECKED

BY Sharon Chuback

		<u>Collection time</u>	<u>Screened</u>	<u>PID</u>
SC-1	SE Wall	1410	1455	632
SC-2	NE Wall	1419	1454	>10,000
SC-3	NW Wall	1424	1456	1,500
SC-4	SW Wall	1430	1458	2,000
SC-5	Bottom	1435	1458	>10,000
SC-6	Stockpile	1445	1457	3,400

West States: fixed pipeline 2/19  
4.5" pipeline

Simon Hampton

# Release Information

Name	MAXEY FEDERAL #15
Location	Latitude/Longitude
	36.714864 -107.044925
	Section, Township, Range
	Sec. 24, T29N, R12W
Reported To	TOM LONG
Area Supervisor	✓ Simon Hampton on Tim Thornton
Diameter of Pipeline	8"
Source of Release	
Release Contents	
Release Volume	
Subcontractor	
Disposal Facility	
Yd <sup>3</sup> Contam. Soil	
PO/WO/AFE	

Notes:

# Field Screening

In Wash  
Down Stream

Enterprise

Location Name

Maxey Federal # 15

Date

2-26-17

Location Name	Description	Depth (Feet BGS)	Time Collected	Time Screened	PID Reading (ppm)
Wash #1	N 108.04543 N 36.71450	8"	1310	1532	62.0
Wash #2	N 36.71407 W 108.04559	6"	1316	1534	65.6
Wash #3	N 36.71364 W 108.04572	8"	1500	1535	8.1
Wash #4	N 36.71331 W 108.04595	8"	1510	1538	12.9

Markers And Area w/ orange Flags

Summer 57° 61°  
Simon 2:10 PM / Trench 23 / Monitor

# Field Screening

Location Name

Date

Mayey Federal # 15

2-26-4

Location Name

Description

Depth (Feet  
BGS)

Time Collected

Time  
Screened

PID Reading  
(ppm)

Stock Pile  
East of Relief

S 1

Surface

10:17

10:28

11.9

S 2

SE Wall  
@ 4'

4'

10:50

11:10

10.8

S 3

SW Wall

3'

11:00

11:15

27.0

S 4

South  
P/L Base

6'

11:07

11:20

70.2

S 5

SE Wall cut to  
Row Limit 9' to P/L

3'-6'

12:20

1236

5912

S 6

Floor  
SW Composite

6'

12:25

12:40

1295

S 7

South End  
of P/LWT

2'-4'

12:45

12:57

43

S 8

SE Wall  
New Cut 18' to P/L

3'-5'

13:27

13:46

245

S 9

Floor 4'  
NE End

4'

13:29

13:47

58.8

S 10

SE Wall  
cut @ 21' to P/L

5'

14:05

14:22

225

S 11

SE Wall  
cut @ 28' to P/L

3'-5'

14:35

14:45

30.2

New  
cut

Stop  
Dig  
3:15

# Field Screening

Location Name				Date	
Maxey Fed #25				2/27/14	
Location Name	Description	Depth (Feet BGS)	Time Collected	Time Screened	PID Reading (ppm)
SC-25	N wall, E. of pipeline 55' from S.	8'	1138	1142	499.8
SC-26	N wall, E of PL 60' from S	12'	1150	1203	528.6
SC-27	SE excavation	6'	1155	1204	2.4
SC-28	W. Bench. # 10' from S.	4'	1255	1303	28.2
SC-29	W. Bench 30' from S.	4'	1258	1304	3557
SC-30	W. Bench 20' from S	6'	1321	1326	47.8
SC-31	W. Bench W. wall, 20' from S.	6'	1345	1359	98.5
SC-32	W. Bench 30' from S.	8'	1358	1403	54.3
SC-33	W. wall 12' W. of PL 20' from S. wall	12'	1415	1422	228.3
SC-34	S. wall, E of PL	14'	1420	1425	3.1
SC-35	W. Base 15' W. of PL	9'	1428	1435	190.1
SC-36	W. wall, 15' W. of PL	10'	1430	1437	120.4
SC-37	W. Base 15' from PL	10'	1441	1501	82.8
SC-38	W. wall 15' from PL	10'	1445	1500	148.4
SC-39	E. Base @ RP	17'	1505	1507	767.4

# Field Screening

SJM

Location Name

Date

Maxey Fed 45

2/27/14

Location Name	Description	Depth (Feet BGS)	Time Collected	Time Screened	PID Reading (ppm)
SC-12	SE wall	9'	0916	0925	62.1
SC-13	SE floor	9'	0912	0924	7.2
SC-14	SE corner, N wall	9'	0915	0927	582.7
SC-15	SE corner W. wall	9'	0919	0928	73.8
SC-16	E floor of pipeline	7'	0950	0957	4068
SC-17	E floor of pipeline	9'	0956	1000	670.2
SC-18	E floor of pipeline	16'	1015	1020	53.7
SC-19	E floor of pipeline mid	14'	1037	1050	4470
SC-20	"	16'	1044	1051	853.6
SC-21	"	17'	1055	1101	102.6
SC-22	E. wall E. of pipeline, 16' 25' from S	17'	1056	1107	22.8
SC-23	N wall, E. of pipeline 25' from S	8'	1115	1120	79.7
SC-24	N End, under pipeline E. of pipeline 25' from South	6'	1122	1131	2006



SUBJECT Maxey Fed #15

PROJECT 5122855-10 PAGE

CLIENT EPCO

DATE 2/27/14

BY STM

CHECKED

BY

- On site @ 0900, HASP, EPCO work permit
- Begin soil screening on SE corner. Excavate on east side of Pipeline to approx 60' from S wall and upto  $\frac{16}{10}$  in depth. (1200)
- move to west side of pipeline, excavation ~~to approx~~ tapers from S wall to  $\approx 15'$  from pipeline in center of excavation. (1430)
- Jonathan Kelly of OCO on site @  $\approx 1445$  to observe excavation
- Re-screen E. floor of excavation, high PIO ( $\approx 76.5$  ppm). Raining. End excavation to allow for spoil pile export. Return on 2/28/14.
- off site @ 1530

2/28/14

- on site @ 0800, HASP | EPCO Safe work permit
- continue excavation on E. of pipeline. Bench excavator down  $\approx 4'$  to reach 18' total Depth on E. side. Remain inside BLM Row.

SE corner of excavation:

36.71494, -108.04487

Center of E wall:

36.71494, -108.04491

NE corner

36.71501, -108.04494

- Excavate in Back and NW sidewalk to w/in Row  
W wall:

SW corner: 36.71499, 108.04494

W mid: 36.71492, 108.04500

NW corner: 36.71500, 108.04500

SE corner: N @ PL: 36.71503, 108.04498

NE: 36.71494, 108.04481

SE: 36.71489, 108.04478

S @ PL 36.71486, 108.04487

off site @ 1645



# Field Screening

SJM

Location Name

Date

Mayey Fed #1J

2/28/14

Location Name

Description

Depth (Feet  
BGS)

Time Collected

Time  
Screened

PID Reading  
(ppm)

①

SC-53

w Base, 15' w PL  
15' N of center

10

1255

1301

34.8

SC-54

NW wall ≈ 55' N

11

1257

1302

59.2

②

SC-55

NW wall  
Near PL

10'

1318

1324

56.6

# Field Screening

Location Name				Date	
Maxey Fed 1J				2/28/14	
Location Name	Description	Depth (Feet BGS)	Time Collected	Time Screened	PID Reading (ppm)
SC-40	E. floor	18'	0815	0826	530.6
SC-41	E. floor (S)	18'	0846	0851	27.2
SC-42	E. sidewalk	18'	0900	0915	234.7
SC-43	E floor (N)	18'	0930	0943	26.3
SC-44	NE sidewalk 0-18'	18'	0959	1007	832.8
SC-45	E floor (50' from S. wall)	18'	1004	1009	39.3
SC-46	N. wall 50' from S. wall	18'	1030	1036	83.4
SC-47	NE wall 50' from S. wall	15'	1048	1100	51.8
SC-48	W. wall 15' out center of pipeline	9'	1055	1103	33.9
SC-49	W. Base 15' out center of pipeline	9'	1057	1104	164.1
SC-50	W. Base 15' from PL near center of PL	9.5'	1108	1115	44.8
SC-51	W. Base 15' from PL S. of center	9.0	1135	1140	153.1
SC-52	W. Base 15' from PL S. of center	10'	1147	1153	92.7

**APPENDIX B**  
**SITE PHOTOGRAPHY**

**Site Photographs**  
**Enterprise Products Maxey Federal #1J Pipeline Release**



Photo 1: Photo of the Maxey federal #1J Pipeline release point during the initial discovery of the release.



Photo 2: Water sampling of Pool #2 during the initial release response. Sample collected approximately 800' downstream of the release.

**Site Photographs**  
**Enterprise Products Maxey Federal #1J Pipeline Release**



Photo 3: Early stages of the of the Maxey Federal #1J Pipeline excavation, facing north.



Photo 4: End of day one of the remediation excavation the Maxey Federal #1J Pipeline, facing north.

**Site Photographs**  
**Enterprise Products Maxey Federal #1J Pipeline Release**

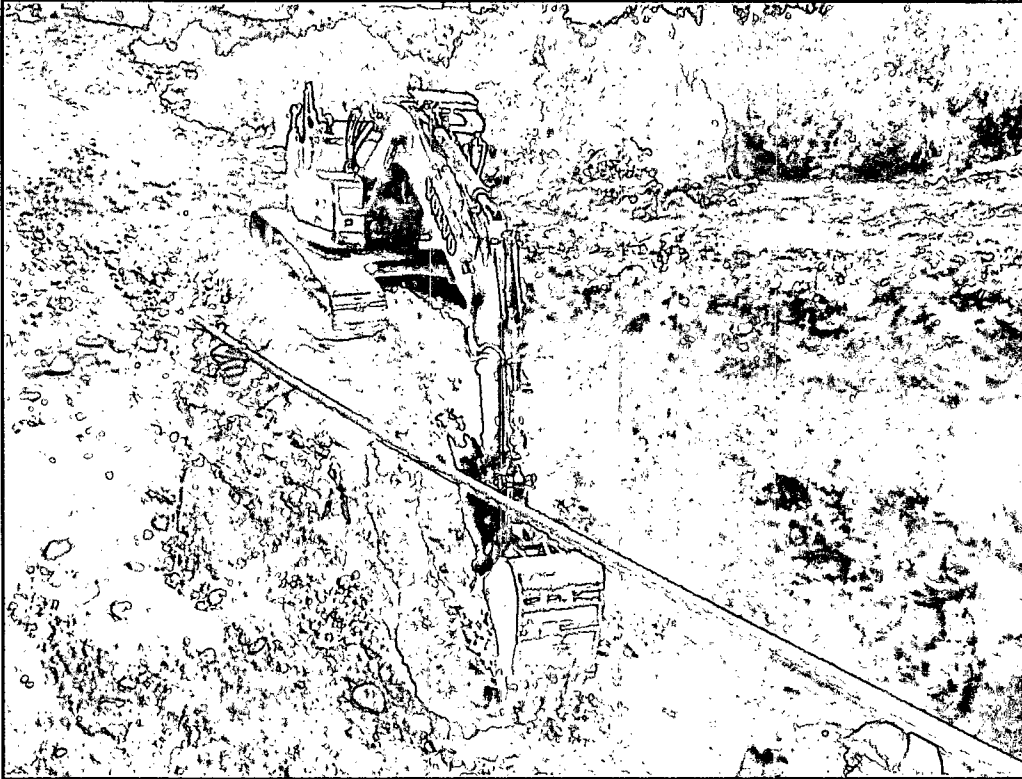


Photo 5: Day two of the Maxey Federal #1J excavation, reaching depths of approximately 15'.

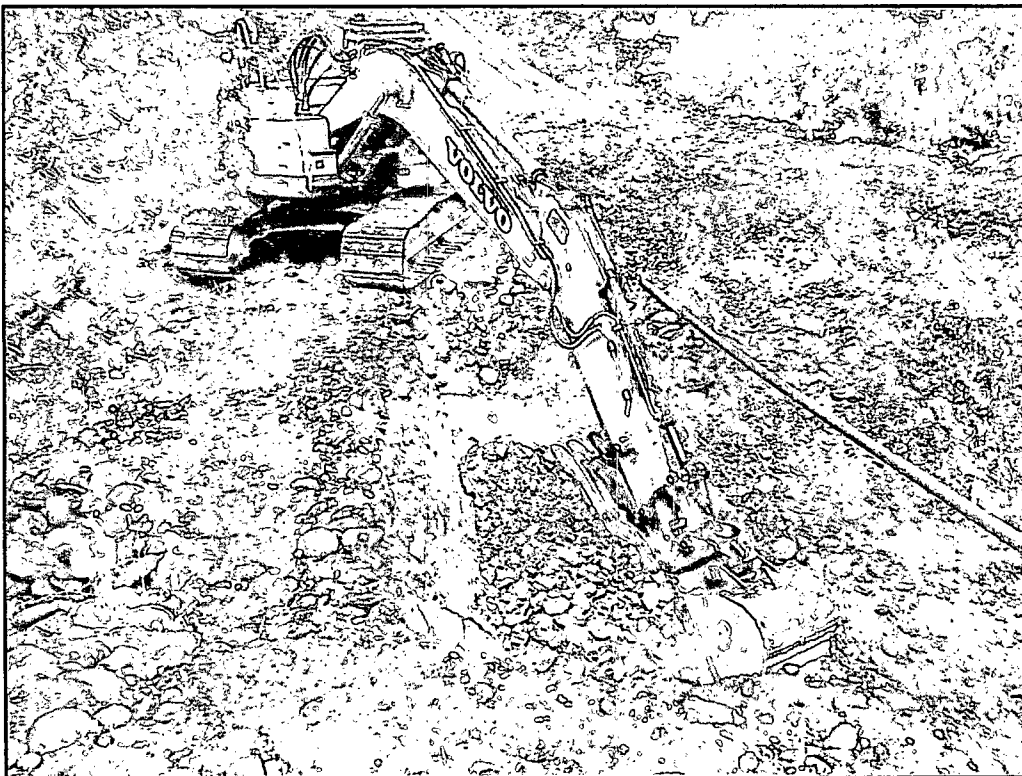


Photo 6: Excavation along the southwest portion of the pipeline remediation excavation, facing north.



**Site Photographs**  
**Enterprise Products Maxey Federal #1J Pipeline Release**

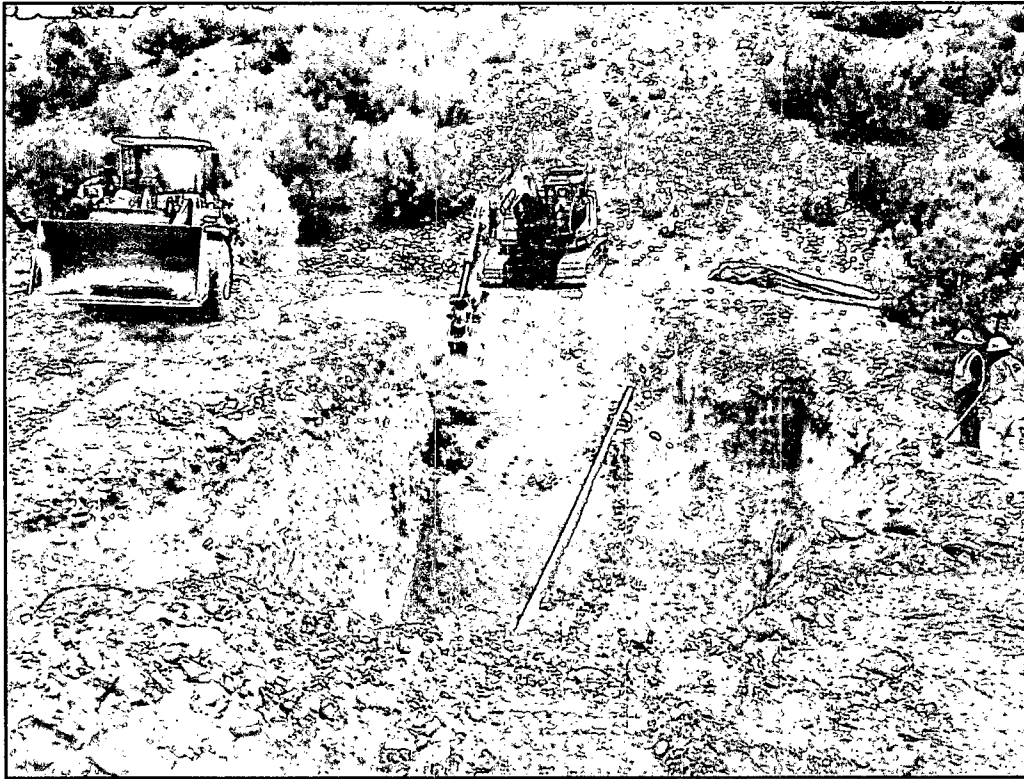


Photo 7: Beginning of Backfilling activities of the Maxey Federal #1J pipeline excavation, facing south.

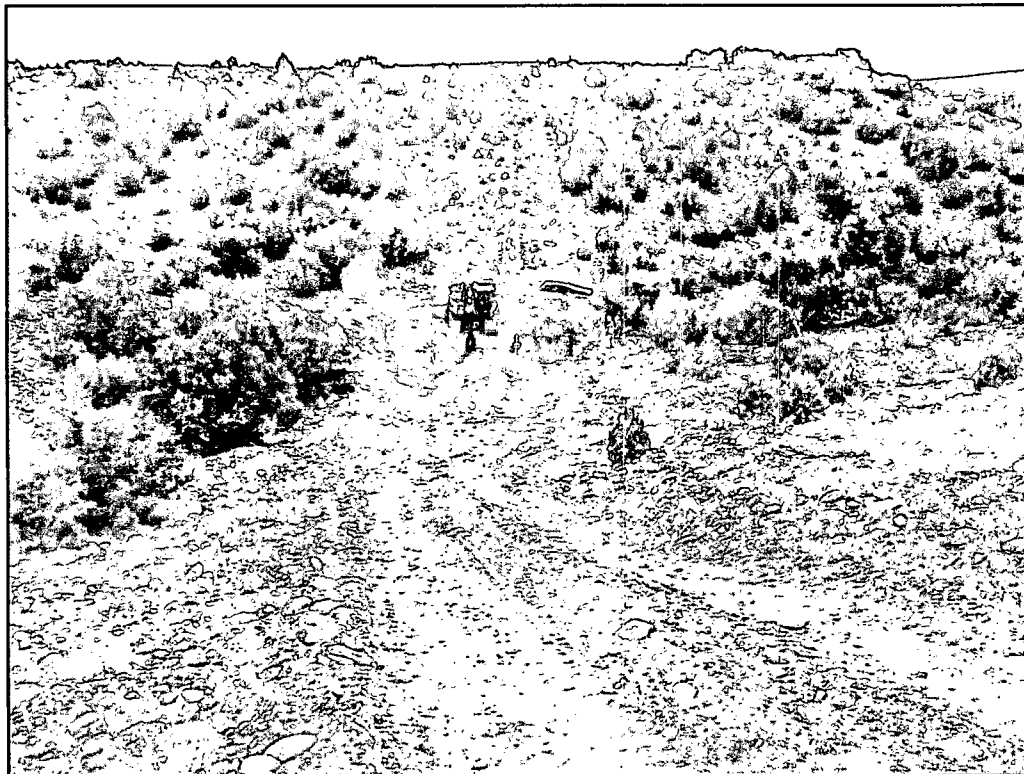


Photo 8: Final excavation and backfilling of the Maxey Federal #1J pipeline.

**APPENDIX C**

**SOIL DISPOSAL DOCUMENTATION**

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-138  
Revised August 1, 2011

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401	AFE: A14949
2. Originating Site: Maxey Federal #1J Well Tie	
3. Location of Material (Street Address, City, State or ULSTR): Unit D, Section 24, T29N, R12W; 36.714864, -107.044925	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas well tie.	
5. Estimated Volume 150 yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) 270 yd <sup>3</sup> (2/26/14) 310 cu (2/27/14) 220 cu (2/28/14)	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, <u>Thomas Long</u> representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby PRINT & SIGN NAME COMPANY NAME certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non- exempt waste. <u>Operator Use Only Waste Acceptance Frequency</u> <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)	
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, <u>Thomas Long</u> 2-25-14, representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech to Generator Signature complete the required testing/sign the Generator Waste Testing Certification. I, <u>[Signature]</u> representative for <u>IEI Envirotech, Inc.</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.	
6. Transporter: West States Energy Contractors (WSEC)	

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. \* Permit #: NM 01-0010B

Address of Facility: #49 CR 2150 Aztec, New Mexico

Method of Treatment and/or Disposal:

Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

[Signature]

TITLE:

Admin. Specialist DATE: 2-26-14

SIGNATURE:

[Signature]

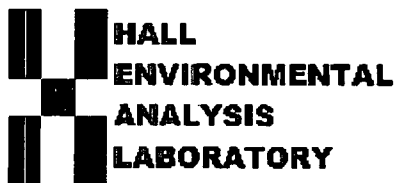
TELEPHONE NO.:

505-635-1782

Surface Waste Management Facility Authorized Agent

**APPENDIX D**

**LABORATORY ANALYTICAL REPORTS**



*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 14, 2014

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Maxey Fed #1-J

OrderNo.: 1403246

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 17 sample(s) on 3/6/2014 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 @ 9'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 9:10:00 AM

Lab ID: 1403246-001

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 4:35:24 PM	12065
Surr: DNOP	115	66-131		%REC	1	3/11/2014 4:35:24 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Surr: BFB	98.6	74.5-129		%REC	1	3/7/2014 2:08:51 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	3/7/2014 2:08:51 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 12:15:30 PM	12097

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 21
	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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 @ 9'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 9:12:00 AM

Lab ID: 1403246-002

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 4:57:24 PM	12065
Surr: DNOP	119	66-131		%REC	1	3/11/2014 4:57:24 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Surr: BFB	95.1	74.5-129		%REC	1	3/7/2014 3:39:30 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/7/2014 3:39:30 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	46	30		mg/Kg	20	3/10/2014 12:27:55 PM	12097

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-18 @ 16'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 10:15:00 AM**Lab ID:** 1403246-003**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 5:19:42 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 5:19:42 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Surr: BFB	84.3	74.5-129		%REC	1	3/7/2014 5:09:57 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	3/7/2014 5:09:57 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	100	30		mg/Kg	20	3/10/2014 12:40:19 PM	12097

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-22 @ 17'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 10:56:00 AM

Lab ID: 1403246-004

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 5:41:52 PM	12065
Surr: DNOP	92.3	66-131		%REC	1	3/11/2014 5:41:52 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Surr: BFB	86.2	74.5-129		%REC	1	3/7/2014 5:39:56 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	3/7/2014 5:39:56 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 12:52:44 PM	12097

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 1403246

Date Reported: 3/14/2014

**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-27 @ 6'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 11:55:00 AM**Lab ID:** 1403246-005**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 6:04:10 PM	12065
Surr: DNOP	117	66-131		%REC	1	3/11/2014 6:04:10 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Surr: BFB	89.6	74.5-129		%REC	1	3/7/2014 6:10:12 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Surr: 4-Bromofluorobenzene	96.1	80-120		%REC	1	3/7/2014 6:10:12 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 1:29:59 PM	12097

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-28 @ 4'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 12:55:00 PM

Lab ID: 1403246-006

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 6:26:15 PM	12065
Surr: DNOP	112	66-131		%REC	1	3/11/2014 6:26:15 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Surr: BFB	85.4	74.5-129		%REC	1	3/7/2014 6:40:23 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	3/7/2014 6:40:23 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 1:42:24 PM	12097

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-41 @ 18'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 8:46:00 AM**Lab ID:** 1403246-007**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 6:48:26 PM	12065
Surr: DNOP	108	66-131		%REC	1	3/11/2014 6:48:26 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Surr: BFB	89.3	74.5-129		%REC	1	3/7/2014 7:10:34 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	3/7/2014 7:10:34 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	57	30		mg/Kg	20	3/10/2014 1:54:48 PM	12097

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-45 @ 18'

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 10:04:00 AM

Lab ID: 1403246-008

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 7:10:30 PM	12065
Surr: DNOP	105	66-131		%REC	1	3/11/2014 7:10:30 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Surr: BFB	77.0	74.5-129		%REC	1	3/7/2014 9:41:33 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Surr: 4-Bromofluorobenzene	81.9	80-120		%REC	1	3/7/2014 9:41:33 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 2:07:14 PM	12097

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 8 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-47 @ 15'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 10:48:00 AM**Lab ID:** 1403246-009**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 7:54:29 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 7:54:29 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Surr: BFB	90.2	74.5-129		%REC	1	3/7/2014 10:11:39 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	3/7/2014 10:11:39 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	3/11/2014 11:59:08 AM	12116

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 9 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-48 @ 9'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 10:55:00 AM**Lab ID:** 1403246-010**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	15	9.9		mg/Kg	1	3/11/2014 8:16:34 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 8:16:34 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Surr: BFB	90.7	74.5-129		%REC	1	3/7/2014 10:41:48 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	3/7/2014 10:41:48 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 12:11:33 PM	12116

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-50 @ 9.5'

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 11:08:00 AM

Lab ID: 1403246-011

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 8:38:28 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 8:38:28 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Surr: BFB	92.5	74.5-129		%REC	1	3/7/2014 11:12:03 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Xylenes, Total	ND	0.093		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	3/7/2014 11:12:03 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	100	30		mg/Kg	20	3/11/2014 12:48:47 PM	12116

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-53 @ 10'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 12:55:00 PM**Lab ID:** 1403246-012**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 9:00:29 PM	12065
Surr: DNOP	113	66-131		%REC	1	3/11/2014 9:00:29 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Surr: BFB	93.4	74.5-129		%REC	1	3/7/2014 11:42:06 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	3/7/2014 11:42:06 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 1:01:12 PM	12116

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-55

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 1:18:00 PM

Lab ID: 1403246-013

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 9:22:22 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 9:22:22 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Surr: BFB	94.3	74.5-129		%REC	1	3/8/2014 12:12:21 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Toluene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Ethylbenzene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Xylenes, Total	ND	0.092		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/8/2014 12:12:21 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	38	30		mg/Kg	20	3/11/2014 1:13:37 PM	12116

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: Wash #1

Project: Maxey Fed #1-J

Collection Date: 2/26/2014 1:10:00 PM

Lab ID: 1403246-014

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	11	10		mg/Kg	1	3/11/2014 9:44:18 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 9:44:18 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Surr: BFB	92.3	74.5-129		%REC	1	3/8/2014 12:42:36 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Toluene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Ethylbenzene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Xylenes, Total	ND	0.093		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	3/8/2014 12:42:36 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 1:26:03 PM	12116

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 14 of 21
	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 1403246  
Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: Wash #2

Project: Maxey Fed #1-J

Collection Date: 2/26/2014 1:16:00 PM

Lab ID: 1403246-015

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	64	9.9		mg/Kg	1	3/11/2014 10:06:31 PM	12065
Surr: DNOP	116	66-131		%REC	1	3/11/2014 10:06:31 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Surr: BFB	93.4	74.5-129		%REC	1	3/8/2014 1:12:43 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Toluene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Ethylbenzene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Xylenes, Total	ND	0.096		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	3/8/2014 1:12:43 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:03:17 PM	12116

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 15 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** Wash #3**Project:** Maxey Fed #1-J**Collection Date:** 2/26/2014 3:00:00 PM**Lab ID:** 1403246-016**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	3/11/2014 10:28:33 PM	12065
Surr: DNOP	118	66-131		%REC	1	3/11/2014 10:28:33 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Surr: BFB	94.6	74.5-129		%REC	1	3/8/2014 1:42:47 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Toluene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	3/8/2014 1:42:47 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:15:41 PM	12116

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 1403246

Date Reported: 3/14/2014

**CLIENT:** Souder, Miller and Associates

**Client Sample ID:** Wash #4

**Project:** Maxey Fed #1-J

**Collection Date:** 2/26/2014 3:10:00 PM

**Lab ID:** 1403246-017

**Matrix:** SOIL

**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 10:50:23 PM	12065
Surr: DNOP	109	66-131		%REC	1	3/11/2014 10:50:23 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Surr: BFB	95.8	74.5-129		%REC	1	3/8/2014 2:12:58 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Toluene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Ethylbenzene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	3/8/2014 2:12:58 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:28:06 PM	12116

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 17 of 21
	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#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12097	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12097	RunNo:	17219					
Prep Date:	3/10/2014	Analysis Date:	3/10/2014	SeqNo:	495365	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12097	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12097	RunNo:	17219					
Prep Date:	3/10/2014	Analysis Date:	3/10/2014	SeqNo:	495366	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID	MB-12116	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12116	RunNo:	17243					
Prep Date:	3/11/2014	Analysis Date:	3/11/2014	SeqNo:	496465	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12116	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12116	RunNo:	17243					
Prep Date:	3/11/2014	Analysis Date:	3/11/2014	SeqNo:	496466	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

### Qualifiers:

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

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

Page 18 of 21

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12065	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12065	RunNo:	17227					
Prep Date:	3/6/2014	Analysis Date:	3/11/2014	SeqNo:	496286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.7	66	131			

Sample ID	LCS-12065	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12065	RunNo:	17227					
Prep Date:	3/6/2014	Analysis Date:	3/11/2014	SeqNo:	496287	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	99.9	60.8	145			
Surr: DNOP	4.9		5.000		98.5	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#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12074	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494571	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		97.1	74.5	129			

Sample ID	LCS-12074	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494572	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.2	71.7	134			
Surr: BFB	1000		1000		103	74.5	129			

Sample ID	1403246-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-13 @ 9'	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494579	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.83	0	100	69.5	145			
Surr: BFB	1000		993.0		105	74.5	129			

Sample ID	1403246-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-13 @ 9'	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494580	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.80	0	81.7	69.5	145	20.2	20	R
Surr: BFB	1000		992.1		101	74.5	129	0	0	

### Qualifiers:

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12074		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	12074		RunNo:	17187			
Prep Date:	3/6/2014		Analysis Date:	3/7/2014		SeqNo:	494615		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	LCS-12074		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	12074		RunNo:	17187			
Prep Date:	3/6/2014		Analysis Date:	3/7/2014		SeqNo:	494616		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.6	80	120			
Toluene	0.91	0.050	1.000	0	90.7	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	1403246-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-12 @ 9'		Batch ID:	12074		RunNo:	17187			
Prep Date:	3/6/2014		Analysis Date:	3/7/2014		SeqNo:	494621		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	0.9950	0	95.1	67.4	135			
Toluene	0.98	0.050	0.9950	0.02008	96.0	72.6	135			
Ethylbenzene	1.0	0.050	0.9950	0.01951	102	69.4	143			
Xylenes, Total	3.2	0.10	2.985	0.03750	107	70.8	144			
Surr: 4-Bromofluorobenzene	1.1		0.9950		111	80	120			

Sample ID	1403246-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-12 @ 9'		Batch ID:	12074		RunNo:	17187			
Prep Date:	3/6/2014		Analysis Date:	3/7/2014		SeqNo:	494628		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	0.9960	0	96.1	67.4	135	1.19	20	
Toluene	0.97	0.050	0.9960	0.02008	95.2	72.6	135	0.658	20	
Ethylbenzene	1.0	0.050	0.9960	0.01951	100	69.4	143	1.83	20	
Xylenes, Total	3.1	0.10	2.988	0.03750	102	70.8	144	4.13	20	
Surr: 4-Bromofluorobenzene	1.1		0.9960		111	80	120	0	0	

### Qualifiers:

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



Hall Environmental Analysts 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: SMA-FARM

Work Order Number: 1403246

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

3/6/2014 10:20:00 AM

Completed By: Ashley Gallegos

3/6/2014 1:17:18 PM

Reviewed By:

### Chain of Custody

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

### Log In

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

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

### Special Handling (If applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway  
Farmington NM, 87401

Phone #: 505 325 7535

Email or Fax#: steven.muskal@sandermiller.com

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

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

☐ EDD (Type) \_\_\_\_\_

☒ Standard ☐ Rush

Project Name: Maxey Fed #1-J

Project #: 5122855 BG10

Project Manager: Steve Muskal

Sampler: Steve Muskal

On Ice: ☒ Yes ☐ No

Sample Temperature: 10



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

1 of 2

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	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)
12/14	0910	Soil	SC-12 @ 9'	402X1	Cool	-001	X												
	0912		SC-13 @ 9'			-002													
	1015		SC-18 @ 16'			-003													
	1056		SC-22 @ 17'			-004													
	1155		SC-27 @ 6'			-005													
	1255		SC-28 @ 4'			-006													
12/14	0846	Soil	SC-41 @ 18'			-007													
	1004		SC-45 @ 18'			-008													
	1048		SC-47 @ 15'			-009													
	1055		SC-48 @ 9'			-010													
	1108		SC-50 @ 9.5'			-011													
	1255		SC-53 @ 10'			-012													

Date: 5/14 Time: 1720 Relinquished by: [Signature]

Date: 5/14 Time: 1720 Received by: Christine Wheeler

Date: 6/14 Time: 1306 Relinquished by: Christine Wheeler

Date: 6/14 Time: 1020 Received by: [Signature]

Remarks: Please copy report to  
alicia.patterson@sandermiller.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.

☐ EDD (Type) \_\_\_\_\_

Sample temperature.		

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

2 of 2

## Analysis Request

[illegible]

July 136 *Christus* *Calah* ~~*Calah*~~ *Calah* 03/06/11 1020

Chickadee, Parus sp. (C. parus)

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



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

March 14, 2014

Steve Moskal  
Souder, Miller and Associates  
401 W. Broadway  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX (505) 327-1496

RE: Maxey Fed #1-J

OrderNo.: 1403246

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 17 sample(s) on 3/6/2014 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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1403246

Date Reported: 3/14/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 @ 9'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 9:10:00 AM

Lab ID: 1403246-001

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 4:35:24 PM	12065
Surr: DNOP	115	66-131		%REC	1	3/11/2014 4:35:24 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Surr: BFB	98.6	74.5-129		%REC	1	3/7/2014 2:08:51 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 2:08:51 PM	12074
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	3/7/2014 2:08:51 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 12:15:30 PM	12097

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-13 @ 9'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 9:12:00 AM**Lab ID:** 1403246-002**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 4:57:24 PM	12065
Surr: DNOP	119	66-131		%REC	1	3/11/2014 4:57:24 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Surr: BFB	95.1	74.5-129		%REC	1	3/7/2014 3:39:30 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 3:39:30 PM	12074
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	3/7/2014 3:39:30 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	46	30		mg/Kg	20	3/10/2014 12:27:55 PM	12097

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 21
	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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-18 @ 16'

Project: Maxey Fed #1-J

Collection Date: 2/27/2014 10:15:00 AM

Lab ID: 1403246-003

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 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	3/11/2014 5:19:42 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 5:19:42 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Surr: BFB	84.3	74.5-129		%REC	1	3/7/2014 5:09:57 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: JMP
Benzene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 5:09:57 PM	12074
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	3/7/2014 5:09:57 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Chloride	100	30		mg/Kg	20	3/10/2014 12:40:19 PM	12097

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		

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**Analytical Report**

Lab Order 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-22 @ 17'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 10:56:00 AM**Lab ID:** 1403246-004**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 5:41:52 PM	12065
Surr: DNOP	92.3	66-131		%REC	1	3/11/2014 5:41:52 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Surr: BFB	86.2	74.5-129		%REC	1	3/7/2014 5:39:56 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 5:39:56 PM	12074
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	3/7/2014 5:39:56 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 12:52:44 PM	12097

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-27 @ 6'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 11:55:00 AM**Lab ID:** 1403246-005**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 6:04:10 PM	12065
Surr: DNOP	117	66-131		%REC	1	3/11/2014 6:04:10 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Surr: BFB	89.6	74.5-129		%REC	1	3/7/2014 6:10:12 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 6:10:12 PM	12074
Surr: 4-Bromofluorobenzene	96.1	80-120		%REC	1	3/7/2014 6:10:12 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 1:29:59 PM	12097

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 5 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-28 @ 4'**Project:** Maxey Fed #1-J**Collection Date:** 2/27/2014 12:55:00 PM**Lab ID:** 1403246-006**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 6:26:15 PM	12065
Surr: DNOP	112	66-131		%REC	1	3/11/2014 6:26:15 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Surr: BFB	85.4	74.5-129		%REC	1	3/7/2014 6:40:23 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 6:40:23 PM	12074
Surr: 4-Bromofluorobenzene	92.8	80-120		%REC	1	3/7/2014 6:40:23 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 1:42:24 PM	12097

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-41 @ 18'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 8:46:00 AM**Lab ID:** 1403246-007**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 6:48:26 PM	12065
Surr: DNOP	108	66-131		%REC	1	3/11/2014 6:48:26 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Surr: BFB	89.3	74.5-129		%REC	1	3/7/2014 7:10:34 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/7/2014 7:10:34 PM	12074
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	3/7/2014 7:10:34 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	57	30		mg/Kg	20	3/10/2014 1:54:48 PM	12097

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-45 @ 18'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 10:04:00 AM**Lab ID:** 1403246-008**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 7:10:30 PM	12065
Surr: DNOP	105	66-131		%REC	1	3/11/2014 7:10:30 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Surr: BFB	77.0	74.5-129		%REC	1	3/7/2014 9:41:33 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Xylenes, Total	ND	0.097		mg/Kg	1	3/7/2014 9:41:33 PM	12074
Surr: 4-Bromofluorobenzene	81.9	80-120		%REC	1	3/7/2014 9:41:33 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/10/2014 2:07:14 PM	12097

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 8 of 21
	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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-47 @ 15'**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 10:48:00 AM**Lab ID:** 1403246-009**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 7:54:29 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 7:54:29 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Surr: BFB	90.2	74.5-129		%REC	1	3/7/2014 10:11:39 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Xylenes, Total	ND	0.099		mg/Kg	1	3/7/2014 10:11:39 PM	12074
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	3/7/2014 10:11:39 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	1.5		mg/Kg	1	3/11/2014 11:59:08 AM	12116

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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-48 @ 9'

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 10:55:00 AM

Lab ID: 1403246-010

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	15	9.9		mg/Kg	1	3/11/2014 8:16:34 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 8:16:34 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Surr: BFB	90.7	74.5-129		%REC	1	3/7/2014 10:41:48 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: JMP
Benzene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/7/2014 10:41:48 PM	12074
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	3/7/2014 10:41:48 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Chloride	ND	30		mg/Kg	20	3/11/2014 12:11:33 PM	12116

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 10 of 21
	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: Souder, Miller and Associates

Client Sample ID: SC-50 @ 9.5'

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 11:08:00 AM

Lab ID: 1403246-011

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 8:38:28 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 8:38:28 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Surr: BFB	92.5	74.5-129		%REC	1	3/7/2014 11:12:03 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Toluene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Ethylbenzene	ND	0.047		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Xylenes, Total	ND	0.093		mg/Kg	1	3/7/2014 11:12:03 PM	12074
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	3/7/2014 11:12:03 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	100	30		mg/Kg	20	3/11/2014 12:48:47 PM	12116

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 1403246

Date Reported: 3/14/2014

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-53 @ 10'

Project: Maxey Fed #1-J

Collection Date: 2/28/2014 12:55:00 PM

Lab ID: 1403246-012

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 9:00:29 PM	12065
Surr: DNOP	113	66-131		%REC	1	3/11/2014 9:00:29 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Surr: BFB	93.4	74.5-129		%REC	1	3/7/2014 11:42:06 PM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Toluene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/7/2014 11:42:06 PM	12074
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	3/7/2014 11:42:06 PM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 1:01:12 PM	12116

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-55**Project:** Maxey Fed #1-J**Collection Date:** 2/28/2014 1:18:00 PM**Lab ID:** 1403246-013**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/11/2014 9:22:22 PM	12065
Surr: DNOP	104	66-131		%REC	1	3/11/2014 9:22:22 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Surr: BFB	94.3	74.5-129		%REC	1	3/8/2014 12:12:21 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Toluene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Ethylbenzene	ND	0.046		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Xylenes, Total	ND	0.092		mg/Kg	1	3/8/2014 12:12:21 AM	12074
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/8/2014 12:12:21 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	38	30		mg/Kg	20	3/11/2014 1:13:37 PM	12116

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 13 of 21
	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 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: Wash #1

Project: Maxey Fed #1-J

Collection Date: 2/26/2014 1:10:00 PM

Lab ID: 1403246-014

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: BCN
Diesel Range Organics (DRO)	11	10		mg/Kg	1	3/11/2014 9:44:18 PM	12065
Surr: DNOP	103	66-131		%REC	1	3/11/2014 9:44:18 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Surr: BFB	92.3	74.5-129		%REC	1	3/8/2014 12:42:36 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: JMP
Benzene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Toluene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Ethylbenzene	ND	0.046		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Xylenes, Total	ND	0.093		mg/Kg	1	3/8/2014 12:42:36 AM	12074
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	3/8/2014 12:42:36 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Chloride	ND	30		mg/Kg	20	3/11/2014 1:26:03 PM	12116

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1403246

Date Reported: 3/14/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: Wash #2

Project: Maxey Fed #1-J

Collection Date: 2/26/2014 1:16:00 PM

Lab ID: 1403246-015

Matrix: SOIL

Received Date: 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	64	9.9		mg/Kg	1	3/11/2014 10:06:31 PM	12065
Surr: DNOP	116	66-131		%REC	1	3/11/2014 10:06:31 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Surr: BFB	93.4	74.5-129		%REC	1	3/8/2014 1:12:43 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Toluene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Ethylbenzene	ND	0.048		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Xylenes, Total	ND	0.096		mg/Kg	1	3/8/2014 1:12:43 AM	12074
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	3/8/2014 1:12:43 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:03:17 PM	12116

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 1403246

Date Reported: 3/14/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** Wash #3**Project:** Maxey Fed #1-J**Collection Date:** 2/26/2014 3:00:00 PM**Lab ID:** 1403246-016**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	3/11/2014 10:28:33 PM	12065
Surr: DNOP	118	66-131		%REC	1	3/11/2014 10:28:33 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Surr: BFB	94.6	74.5-129		%REC	1	3/8/2014 1:42:47 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Toluene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Ethylbenzene	ND	0.049		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Xylenes, Total	ND	0.098		mg/Kg	1	3/8/2014 1:42:47 AM	12074
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	3/8/2014 1:42:47 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:15:41 PM	12116

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 **1403246**

Date Reported: 3/14/2014

**CLIENT:** Souder, Miller and Associates**Client Sample ID:** Wash #4**Project:** Maxey Fed #1-J**Collection Date:** 2/26/2014 3:10:00 PM**Lab ID:** 1403246-017**Matrix:** SOIL**Received Date:** 3/6/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2014 10:50:23 PM	12065
Surr: DNOP	109	66-131		%REC	1	3/11/2014 10:50:23 PM	12065
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>JMP</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Surr: BFB	95.8	74.5-129		%REC	1	3/8/2014 2:12:58 AM	12074
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Toluene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Ethylbenzene	ND	0.048		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Xylenes, Total	ND	0.095		mg/Kg	1	3/8/2014 2:12:58 AM	12074
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	3/8/2014 2:12:58 AM	12074
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/11/2014 2:28:06 PM	12116

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#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12097	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12097	RunNo:	17219					
Prep Date:	3/10/2014	Analysis Date:	3/10/2014	SeqNo:	495365	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12097	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12097	RunNo:	17219					
Prep Date:	3/10/2014	Analysis Date:	3/10/2014	SeqNo:	495366	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID	MB-12116	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	12116	RunNo:	17243					
Prep Date:	3/11/2014	Analysis Date:	3/11/2014	SeqNo:	496465	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-12116	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	12116	RunNo:	17243					
Prep Date:	3/11/2014	Analysis Date:	3/11/2014	SeqNo:	496466	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

### 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#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12065	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12065	RunNo:	17227					
Prep Date:	3/6/2014	Analysis Date:	3/11/2014	SeqNo:	496286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.7	66	131			

Sample ID	LCS-12065	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12065	RunNo:	17227					
Prep Date:	3/6/2014	Analysis Date:	3/11/2014	SeqNo:	496287	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	99.9	60.8	145			
Surr: DNOP	4.9		5.000		98.5	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#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	MB-12074	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494571	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		97.1	74.5	129			

Sample ID	LCS-12074	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494572	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.2	71.7	134			
Surr: BFB	1000		1000		103	74.5	129			

Sample ID	1403246-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-13 @ 9'	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494579	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.83	0	100	69.5	145			
Surr: BFB	1000		993.0		105	74.5	129			

Sample ID	1403246-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-13 @ 9'	Batch ID:	12074	RunNo:	17187					
Prep Date:	3/6/2014	Analysis Date:	3/7/2014	SeqNo:	494580	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.80	0	81.7	69.5	145	20.2	20	R
Surr: BFB	1000		992.1		101	74.5	129	0	0	

### Qualifiers:

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403246

14-Mar-14

Client: Souder, Miller and Associates

Project: Maxey Fed #1-J

Sample ID	<b>MB-12074</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>12074</b>		RunNo:	<b>17187</b>			
Prep Date:	<b>3/6/2014</b>		Analysis Date:	<b>3/7/2014</b>		SeqNo:	<b>494615</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	<b>LCS-12074</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>12074</b>		RunNo:	<b>17187</b>			
Prep Date:	<b>3/6/2014</b>		Analysis Date:	<b>3/7/2014</b>		SeqNo:	<b>494616</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.6	80	120			
Toluene	0.91	0.050	1.000	0	90.7	80	120			
Ethylbenzene	0.96	0.050	1.000	0	95.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	<b>1403246-001AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>SC-12 @ 9'</b>		Batch ID:	<b>12074</b>		RunNo:	<b>17187</b>			
Prep Date:	<b>3/6/2014</b>		Analysis Date:	<b>3/7/2014</b>		SeqNo:	<b>494621</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	0.9950	0	95.1	67.4	135			
Toluene	0.98	0.050	0.9950	0.02008	96.0	72.6	135			
Ethylbenzene	1.0	0.050	0.9950	0.01951	102	69.4	143			
Xylenes, Total	3.2	0.10	2.985	0.03750	107	70.8	144			
Surr: 4-Bromofluorobenzene	1.1		0.9950		111	80	120			

Sample ID	<b>1403246-001AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>SC-12 @ 9'</b>		Batch ID:	<b>12074</b>		RunNo:	<b>17187</b>			
Prep Date:	<b>3/6/2014</b>		Analysis Date:	<b>3/7/2014</b>		SeqNo:	<b>494628</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	0.9960	0	96.1	67.4	135	1.19	20	
Toluene	0.97	0.050	0.9960	0.02008	95.2	72.6	135	0.658	20	
Ethylbenzene	1.0	0.050	0.9960	0.01951	100	69.4	143	1.83	20	
Xylenes, Total	3.1	0.10	2.988	0.03750	102	70.8	144	4.13	20	
Surr: 4-Bromofluorobenzene	1.1		0.9960		111	80	120	0	0	

### Qualifiers:

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



Hall Environmental Analysis Laboratory  
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: SMA-FARM

Work Order Number: 1403246

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

3/6/2014 10:20:00 AM

Completed By: Ashley Gallegos

3/6/2014 1:17:18 PM

Reviewed By:

### Chain of Custody

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

### Log In

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

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

### Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway  
Farmington NM, 87401

Phone #: 505 325 7535

Email or Fax#: steven.muskal@sander-miller.com

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

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

☐ EDD (Type) \_\_\_\_\_

☒ Standard ☐ Rush

Project Name: Maxey Fed #1-J

Project #: 5122855 BG10

Project Manager: Steve Muskal

Sampler: Steve Muskal

On Ice: ☒ Yes ☐ No

Sample Temperature: 10°C



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

1 of 2

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMBE (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	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)
12/1/14	0910	Soil	SC-12 @ 9'	402X1	Cool	-001	X												
	0912		SC-13 @ 9'			-002													
	1015		SC-18 @ 16'			-003													
	1056		SC-22 @ 17'			-004													
	1155		SC-27 @ 6'			-005													
	1255		SC-28 @ 4'			-006													
12/8/14	0846	Soil	SC-41 @ 18'			-007													
	1004		SC-45 @ 18'			-008													
	1048		SC-47 @ 15'			-009													
	1055		SC-48 @ 9'			-010													
	1108		SC-50 @ 9.5'			-011													
	1255		SC-53 @ 10'			-012													

Date: 5/14/14 Time: 1720 Relinquished by: [Signature]

Date: 6/14/14 Time: 1300 Relinquished by: [Signature]

Date: 3/5/14 Time: 1720 Received by: [Signature]

Date: 03/06/14 Time: 1020 Received by: [Signature]

Remarks: Please copy report to  
alicia.patterson@sander-miller.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.

26

Client: SMA

SMA

Mailing Address: 401 W. Broadway  
Farmington NM 87401

Phone #: 505 325 7535

email or Fax#: steven.moskal@sovellymiller.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

## Accreditation

☐ NELAP

☐ Other☐ EDD (Type)

**TURN-AROUND TIME.**

☒ Standard      ☐ Rush

Project Name:

Maxwell Fed # 1-J

Project #: 0  
5122855 BGD

**Project Manager:**

Steve Myskal

Sampler: Steve Moskal

On Ice: ☒ Yes ☐ No

Sample Temperature: 100

[illegible]

Date:	Time:	Relinquished by:
-------	-------	------------------

5/14	1720	<i>Alfred Smith</i>
------	------	---------------------

Date:	Time:	Relinquished by:
-------	-------	------------------

16/14 636 Christine Woods

Received by:

Christie White

Received by:

~~Anthony Gallardo~~

Date	Time
------	------

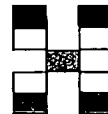
3/5/14 1720

Date \_\_\_\_\_ Time \_\_\_\_\_

03/06/14  
1020

Remarks:

copy report to  
alicia.patterson@sawdormiller.com



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

4901 Hawkins NE - Albuquerque, NM 87109

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

2 of 2

## Analysis Request

✓	✓	BTEX + MTBE + TMS'S (8021)
		BTEX + MTBE + TPH (Gas only)
✓	✓	TPH 8015B (GRO / DRO / MRO)
		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)

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

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
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: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral 3D Loop Pipeline	Facility Type: Natural Gas Gathering Line
Surface Owner: NAPI/Navajo Tribal	Mineral Owner: BLM
API No.	

**LOCATION OF RELEASE**

Unit Letter D	Section 2	Township 27N	Range 12W	Feet from the 471	North South Line	Feet from the 285	East West Line	County San Juan
------------------	--------------	-----------------	--------------	-------------------------	------------------------	-------------------------	----------------------	--------------------

Latitude 36.610141 Longitude -108.089073

**NATURE OF RELEASE**

Type of Release: natural gas and natural gas liquids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Internal corrosion	Date and Hour of Occurrence: 3/18/2014 @ 3:40 p.m.	Date and Hour of Discovery: 3/18/2014 @ 3:40p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	OIL CONS. DIV DIST. 3	
By Whom?		
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. JUN 20 2014	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A release was discovered on the Lateral 3D Loop pipeline by third party. The line was blown down, taken out of service and LOTO (lock out tag out) was applied. The repairs/remediation were completed on March 31, 2014.

Describe Area Affected and Cleanup Action Taken.\* The repairs/remediation were completed on March 31, 2014. The final excavation was approximately thirty-five (35) feet long by sixteen (16) feet wide by eight (8) feet deep. Approximately 110 cubic yards of hydrocarbon impacted soil was removed and transported to an NMOCD approved land farm facility. A third party environmental contractor corrective action report is included with this "final" c-141.

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>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 9/5/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6-17-2014	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

#NCS 142 4840 431

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**Closure Report**  
**Lateral 3D Loop Release**

Prepared for:



**Enterprise Products™**

**Enterprise Products**  
1100 Louisiana Street  
Houston, Texas, 77002

Prepared by:  
**HRL Compliance Solutions, Inc.**  
2385 F ½ Road  
Grand Junction, CO 81505  
Phone: 970-243-3271

Prepared: April 2014



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**Figure 2:** Soil Contamination Concentration and Sample Locations

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**Appendix A:** Field Notes

**Appendix B:** Site Photography

**Appendix C:** Laboratory Analytical Results

**Appendix D:** Bills of Lading

**Appendix E:** Hall Environmental Analysis Laboratory Analytical Report

## EXECUTIVE SUMMARY

On March 18<sup>th</sup>, 2014, Enterprise Products responded to a One-Call issued for the Gas Company of New Mexico in regards to a potential gas release on the Enterprise Lateral 3D Loop. Enterprise contracted HRL Compliance Solutions, Inc. (HCSI) to assist in the site investigation and remediation of the release.

HCSI personnel responded to the potential release location on March 25<sup>th</sup>, 2014 to conduct the field investigation. During the initial excavation, Photo-Ionization Detection (PID) and Total Petroleum Hydrocarbons (PetroFLAG<sup>TM</sup>) field screen data confirmed no evidence of a release suggesting that the adjacent line was potentially leaking.

On March 28<sup>th</sup>, 2014 crews excavated the adjacent gas line, which revealed evidence of contaminated soils and confirmed that the pipe was compromised. PID and PetroFLAG<sup>TM</sup> field screening data indicated that the north wall and base of the excavation yielded the highest levels of contamination.

Based on these findings an additional two (2) feet of soil was removed from the bottom of the excavation, and six to twelve (6-12) inches were removed from the north wall. Additional field screen results were well within acceptable parameters of New Mexico Oil Conservation Division (OCD) and Navajo Nation Solid Waste Regulations remediation action levels. Based on field data results, the decision was made to backfill the excavation using clean soil from the Envirotech Landfarm.

Analytical results of the composite samples collected from the excavation were 'Non Detect', and no additional excavation is required as the site complies with NMOCD and Navajo Nation regulatory criteria.

## INTRODUCTION

The purpose of this closure report for the Lateral 3D Loop (in addition to the previously excavated adjacent '3D Loop') is to provide detailed information, result analysis, and the documentation necessary to establish a comprehensive investigation of the two excavations in accordance with all appropriate county, state and federal rules and regulations.

The legal description of the release point source is:

Latitude: 36.595184° N Longitude: -108.044628° W  
Unit D (NWNW), Section 2, Township 27N, Range 12W  
471' FNL, 285' FWL  
San Juan County, New Mexico

Remediation activities began on March 25<sup>th</sup>, 2014 and were concluded on March 31<sup>st</sup>, 2014. Information in this report includes but is not limited to: soil field screening results, laboratory analytical results, and unsaturated contaminated soil treatment and disposal.

## SITE RANKING & LAND JURISDICTION

The release site is located on land of the Navajo Agricultural Products Industry (NAPI). Under these circumstances, the New Mexico Oil Conservation Division maintains jurisdiction in cooperation with the Navajo Nation regulations. Since the Lateral 3D Loop is bounded by the Navajo Nation regulatory standards, the site is ranked at a more stringent level of remediation, exceeding an NMOCD ranking score of 20, requiring the site contaminants to be cleaned to the following concentration levels:

Benzene: 10 ppm

BTEX: 50 ppm

TPH: 100 ppm

## SUMMARY OF FIELD ACTIVITIES

HCSI personnel arrived on location to conduct the initial investigation of the release site on March 25<sup>th</sup>, 2014. The initial excavation that took place did not present any immediate evidence of a line rupture. Pre-confirmation field screens using Photo-Ionization Detection (PID) were conducted to detect headspace Volatile Organic Compounds. Because the field screen readings were low, a three-point composite sample was collected from the stockpiled soil at depths of 0-6 inches, 2 feet, and 6 feet for confirmation field screens. Using a PetroFLAG<sup>TM</sup>, a confirmation field screen for Total Petroleum Hydrocarbons (TPH) was conducted. The laboratory analysis confirmed the results were within acceptable parameters of New Mexico Oil Conservation Division (OCD) remediation action levels (*see table 1*). The initial excavation was closed out and personnel were requested to wait on orders for further action.

On March 28<sup>th</sup>, 2014 at approximately 12:45 PM, crews began excavating the ruptured line (due to internal corrosion) adjacent to the initial excavation. Once the line was exposed to a depth of approximately 6 feet, soils were field screened for evidence of hydrocarbon contamination. A series of composite samples were collected from each of the excavation walls and footprint of excavation. PID and PetroFLAG<sup>TM</sup> field screen readings revealed contaminant levels which exceeded New Mexico OCD remediation standards on the north wall and excavation footprint (*see table 1*).

To better assess the lateral extent of contamination remaining in the north wall and the vertical extent of contamination in the excavation footprint, HCSI personnel utilized a hand auger to bore an additional 12 inches into both the north wall and footprint and determine if this would be sufficient. The PetroFLAG<sup>TM</sup> results from these samples indicated results below OCD remedial parameters (*see table 1*).

On March 31<sup>st</sup>, 2014, an additional 6 to 12 inches of soil was excavated from the north wall and an additional 2 feet of soil was excavated from the bottom of the excavation to a final depth of 8 feet. PID and (PetroFLAG<sup>TM</sup>) field screen results indicated that the additional material removed was sufficient to comply with New Mexico OCD standards (*see table 1*). The decision was made to backfill based on the low field screen results and additional authorization from Enterprise Products.

## ANALYTICAL DATA MANAGEMENT

The soil sample collected from the stockpiled material on the initial excavation was submitted, March 26<sup>th</sup>, 2014 to Hall Laboratories in Albuquerque, New Mexico for analysis. The additional five samples collected from the walls and excavation footprint of the primary excavation were submitted on April 1<sup>st</sup>, 2014. Samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and Total Petroleum Hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO). All sample results came back ‘Non Detect’ (*Refer to Appendix C for analytical results*).

## MANAGEMENT OF STOCKPILED MATERIAL

Approximately 110 cubic yards of contaminated soil was excavated. Based on field screen results, the excavated soil was deemed unsuitable for backfill. The impacted soils were transported to the Envirotech, Inc. Landfarm for disposal (see attached bill of lading / manifest tickets). In addition, Envirotech provided approximately 120 cubic yards of clean soil for backfilling the excavation.

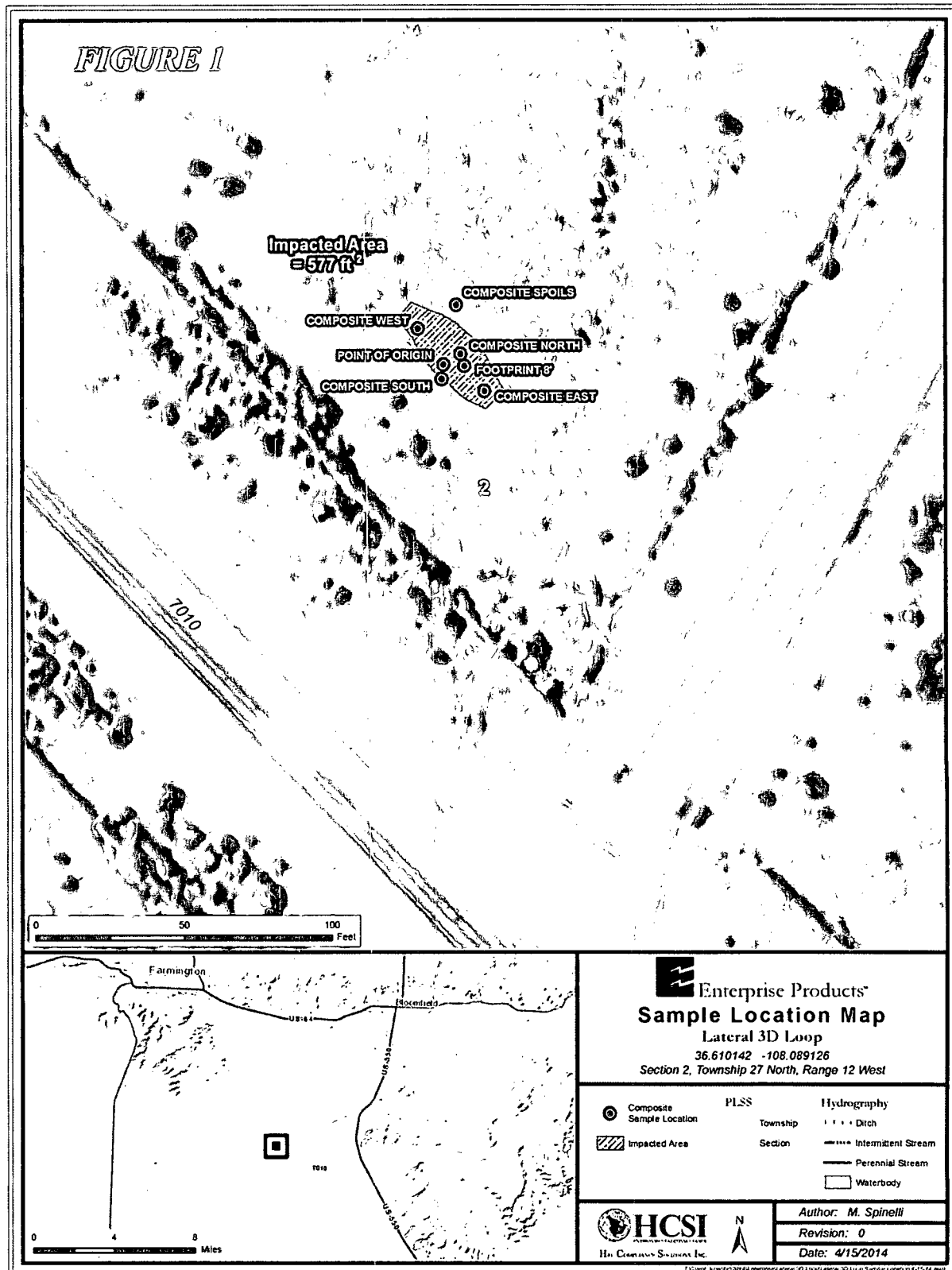
## CONCLUSION AND FURTHER RECOMMENDATIONS

Based on field screen readings and analytical results, it is the professional opinion of HCSI that the site complies with New Mexico OCD and Navajo Nation remediation cleanup standards. No additional excavation will be required. Therefore, the Lateral 3D Loop Release project can be considered closed.

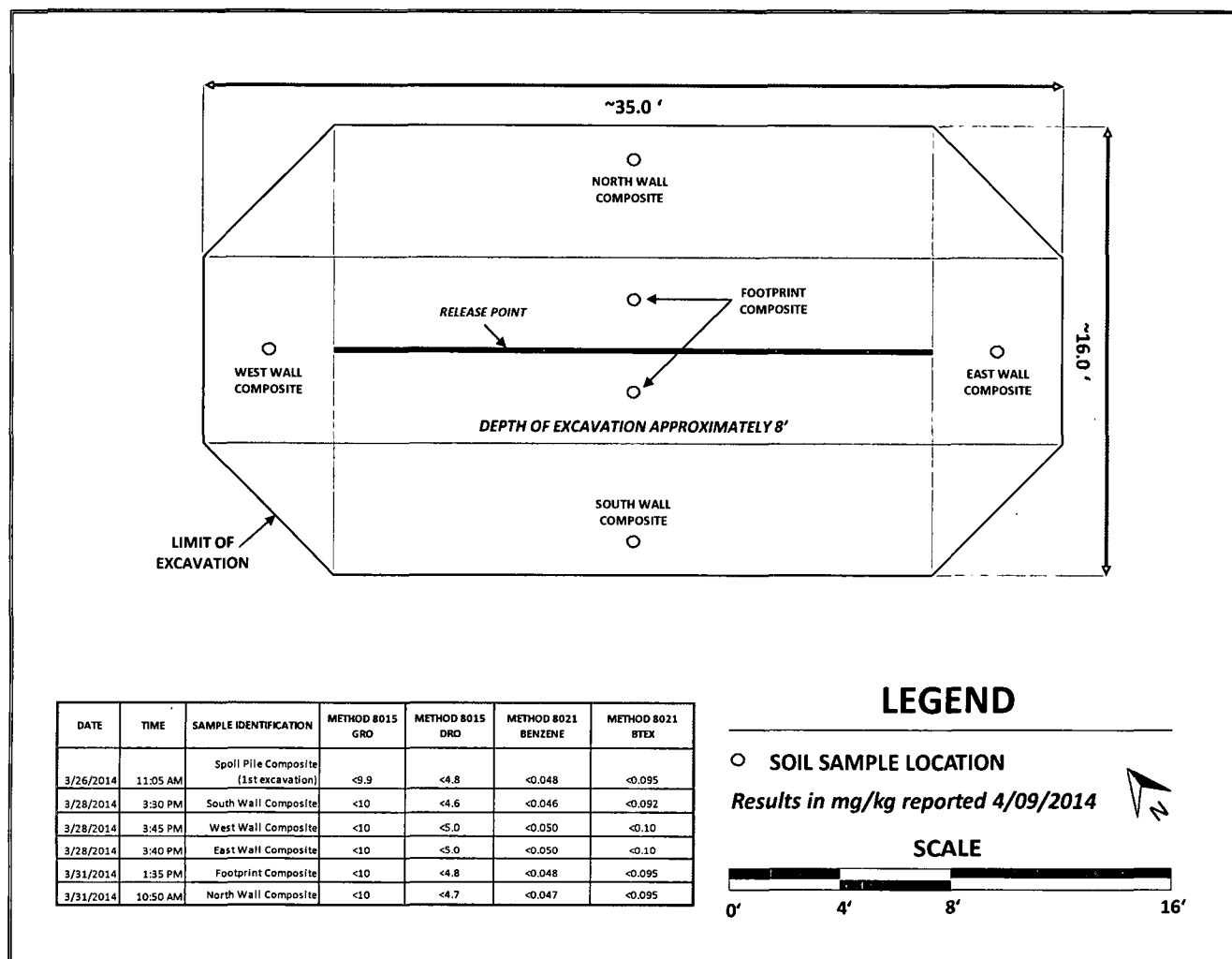
**Table 1: Confirmation Field Screen Readings**

DATE	TIME	SAMPLE IDENTIFICATION	DEPTH (BGS)	PID (ppm)	PetroFLAG™ (ppm)	LAB SAMPLE SUBMITTED?
<b>INITIAL FIELD SCREEN</b>						
3/28/2014	15:30	South wall Composite	2.0'; 4.0'; 6.0'	5.0	0.0	Y
3/28/2014	15:40	East Wall Composite	3.0' - 6.0'	5.5	4.0	Y
3/28/2014	15:45	West Wall Composite	3.0' - 6.0'	0.5	46.0	Y
3/28/2014	15:55	Spoil Pile Composite	3.0' - 6.0'	349.0	410.0	N
3/28/2014	15:35	North Wall Composite	2.0'; 4.0'; 6.0'	50.0	159.0	N
3/28/2014	15:50	Footprint Composite	6.0'	6.6	138.0	N
<b>12" HAND AUGER BORE FIELD SCREEN</b>						
3/28/2014	18:10	North Wall	4.0'	15.0	2.0	N
3/28/2014	18:10	Footprint	6.0'	9.0	0.0	N
<b>POST-EXCAVATION FIELD SCREEN</b>						
3/31/2014	10:50	North Wall Composite	0-12.0"; 4.0'; 8.0'	6.1	31	Y
3/31/2014	13:10	Footprint Composite	8.0'	6.2	7	Y

***FIGURES***



**Figure 2: Soil Contamination Concentration and Sample Locations**



## ***APPENDIX A***

### ***FIELD NOTES***



[illegible]

DATE 3/25/14 PROJECT # NAFISR WEATHER Sunny (13)	
NAFISR SMO. RELEASE & BACK GROUND. PII • VITAL PII <del>FROM</del> • SITE WAS ESTABLISHED FOR GAS CO. SC. NM. IL UP LEAD IN VEAR LINE.	LATERAL TO LOP • 3.2 FPM LEADERS NO FOR VOR BASED ON 1. CALZ DETECTOR PLACED
• ENERGY MAINTAIN FULL SUBSIDIARY IN RELEASE SITE.	LINE SERVICES HAS AUTHORITY OVER
• EXCAVATED <del>IN</del> (W/ SPAN) SOIL EVIDENCE OF LEAD ON TOPS.	• <del>AT</del> UN-TERMINATED NO IMMEDIATE N. LINE WAITING
• WILL PAY FIELD TOMORROW (O-SAN).	SEENS FOR TPA
• LEFT SITE @ 1700: KL, HL.	

DURABLE  
 OCCASION

3/26/14 LATERAL 3D LOOP (PUMP) CLOSURE  
 50°S

FIELD SCREEN # 1-3-26-14

SPOOL PILE COMPOSITE SAMPLE

ID	TIME	DEPTH	PID	TRIP	TRIP	TRIP
SPO1	1045	2'-5"	1.6	8		NO

1045- THE COLLECTION WAS DONE USING  
 A HAND AUGER, COLLECTING COMPOSITE  
 SAMPLES FROM 3 LOCATIONS ON  
 THE SPOOL PILES, AT DEPTHS OF 2'-6",  
 3', & 5'.

1200- IT HAS BEEN DETERMINED THAT  
 THE WORK LINE HAS BEEN EXHAUSTED  
 WAITING FOR ORDERS.

DEPART LOCATION @ 1200: KG, AL

DATE 3/28/14 PROJECT # Trunk 3D WEATHER B: 32.2y, (14.1)

- Release 50's
- 0906  
 We collected two samples for our field screens (1) @ 0-6" Depth and (1) @ 12" depth on South Side of Hwy near Valve set.  
 0-6" depth = 300 ppm PID (Field Screen)  
 12" depth = 50 ppm PID
- Visual Staining apparent on South side of Hwy. Staining is minimally ~~not~~ visible on North Side.  
 Hwy pavement does show staining. Spill area mapped @ 0930.
- Point of Origin - 6-8' Vertical pipe, released gas
- Field Screen 2 (North Side of Hwy)  
 - 0-6" depth = 0.3 ppm PID  
 - 6-9" depth = 0.5 ppm PID
- Field Screen 3 (South Side of Hwy)  
 - 6" depth = 3.2 ppm PID  
 1109
- Field Screen 4 (South Side)  
 1300 6" depth = 4.7 ppm PID

DURABLE DOCUMENTS



**HCSI**  
ENVIRONMENTAL CONSULTANTS

HRL COMPLIANCE SOLUTIONS, INC.

Lateral 3D Loop Release

# Confirmation Field Screen - Trunk 3D

1305 SS01 (South Side of Hwy)  
↳ This sample is comprised  
of 5 individual grab samples  
(middle, and each corner)

1710 PID = 1.0 ppm  
Retrolly = 94 ppm

1720 PID = 1.3  
Retrolly = 9 ppm

1310 SS02 (North Side of Hwy)  
↳ This sample is also comprised  
of 5 individual grab samples  
(middle and each corner)

1310 PID = 2.0 ppm  
Retrolly = err 4; will return w/ 1g Sample  
Retrolly = 490

1720 PID = 2.0 ppm  
Retrolly = 17 ppm

DATE 3/28/14 PROJECT Log Adjustment WEATHER Breezy, Cloudy  
50's

- On Site @ 0800  
↳ No digging (commencing)  
↳ Apparently waiting on Location?

- Back on Site @ 1015  
↳ Still no digging  
↳ Performed initial field screen

Field Screen 1 = PED Down hole 20ppm pr  
@ pt of Origin = Baggie 1400 ppm PED  
(Collect w/ Aug. in pitside)

(EMS)  
- Brent stated that we are still  
not digging because Enterprise  
is currently having an issue with  
a downstream valve; therefore  
blow down of the leaking line  
cannot be completed.

- 1245  
↳ Crews digging down to expose  
pipeline.

- 1346 Back on Site Crews still exposing  
pipeline

DURABLE  
DOCUMENTS

# Confirmation Field Screen

ID	Time	(PPM)	(PPM)
North	1535	50	159
West	1545	0.5	46
East	1540		4
South	1530		0
Footprint	1550	6.6	138
Spill Pic	1555		410

North 1810 15.0 2.0 1<sup>st</sup> North w/ Auger  
 Footprint 1810 9.0 0.0 1<sup>st</sup> Deep w/ Auger

1850 Left Site @ 1850  
 Kris G. and Michel.

DATE 3/31/14 PROJECT # LAT 3D LOOP WEATHER SUN 102/50°

LATERAL 3D LOOP CONT'D FROM 3/28/14  
 ADDITIONAL EXCAVATION NECESSARY ON  
 THE NORTH WALL & FOOTPRINT DUE TO  
 HIGH VOL/TPH RESULTS. AVEER TEST  
 FROM 3/27+ 3/28. RECOMMEND ADDITIONAL  
 12" FOR LENSURE

800 - ON SITE PRESSURE TEST PIPE; NEW  
 1/2" DIA. BEIN TRANSFERRED ON TO LOCATION  
 CONTAMINATED SOIL BEIN TRKS FOR  
 DISPOSAL @ ENVIRONMENTAL LUNARVA. ISA  
 CONDUCTED, LOTD EXCERPTED

1000 - BEIN EXCAVATED ADDITIONAL 12"  
 CUT ON NORTH WALL & BASE

1025 - 2 COMPOSITE FIELD GRABS OF  
 NORTH WALL & BASE FOR VOL FIELD  
 SCREEN

FIELD SCREEN 1-3-31-14

FIELD ID	TIME	PID (PPM)	TPH
FOOTPRINT	1036	74.1	N/A
BASE NORTH W	1037	4.2	N/A

3/31/14 LAT 3D LOOP CONT'D

1245 - RECOMMEND CUTTING ADDITIONAL 12" FROM THE BASE, VDC'S STILL HOT

1250 - PRATE TO LUTTING, WILL CONDUCT INDIVIDUAL STRATEGICAL SAMPLING METHOD IN EFFORT TO ISOLATE HIGH VDC ZONES: FIELD SCREENS 2-3-31-14 3-3-31-14

2 NORTH WALL	ID	TIME	PID (PPM)	TPH (PPM)
	TOP	01 1050	7.0 PPM	N/A
	NE 02	1051	1.0	
	NE 03	1052	6.5	
	NW 04	1054	10.4	
	NW 05	1056	6.6	

3 FOOTPRINT	ID	TIME	PID (PPM)	TPH (PPM)
	BW 01	1100	990.5	N/A
	BM 02	1102	110.6	
	BE 03	1104	264.0	

BRIEFLY MET W/ TOM LANE TO DISCUSS DAILY ACTIVITY, DISCUSS SITE LANDING & REPORT FROM

DATE 3/31/14 PROJECT LAT 3D LOOP WEATHER 100%

1230 - AFTER WAITING FOR PIPE CONTINUED TO COOL, FILLING CUTTING ADDITIONAL 12" OUT OF BASE.

1251 - USING HAND AUGER COLLECT COMPOSITE SAMPLES FROM NORTH WALL & FOOTPRINT FROM 0-1' FOR 7TH TRAIL / ON FIELD SCREEN #4.

1310 - (CONTACT FIELD SCREEN 4-3-31-14

13	TIME	PID (PPM)	TPH (PPM)
NORTH WALL COMPOSITE	1310	6.2	31
FOOTPRINT COMPOSITE	1310	6.2	7

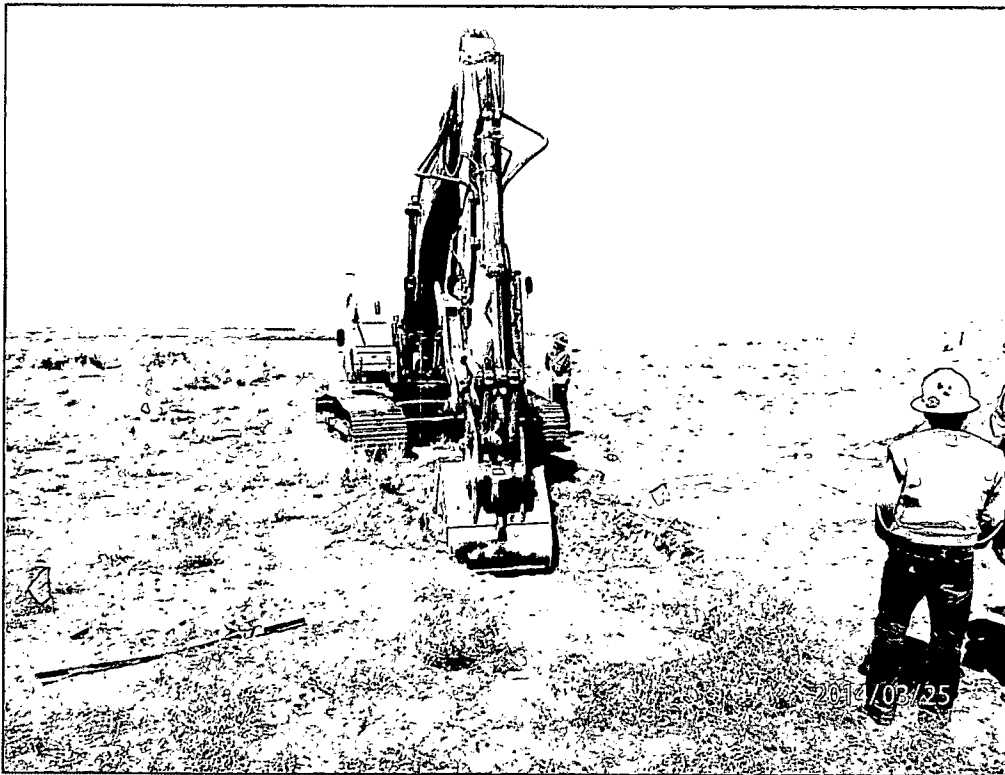
1315 - LATEST NORTH WALL / FOOTPRINT COMPOSITE SAMPLES RESULTS FALL BELOW MINIMABLE OLD REL. LATERAL STANDARDS. THE SITE COMPOSITE SAMPLES WILL BE SENT TO PHIL LAB FOR ANALYTICAL SCREENING.

1400 - RECOMMEND BACKFILL & CLOSURE OF SITE BASED ON FIELD SCREENS. REVIEW ENVIRONMENTAL FILE FOR SOIL DISPOSAL / BACKFILL. LEFT SITE @ 1500 KG

DURABLE LOG SHEET

***APPENDIX B***  
***SITE PHOTOGRAPHY***





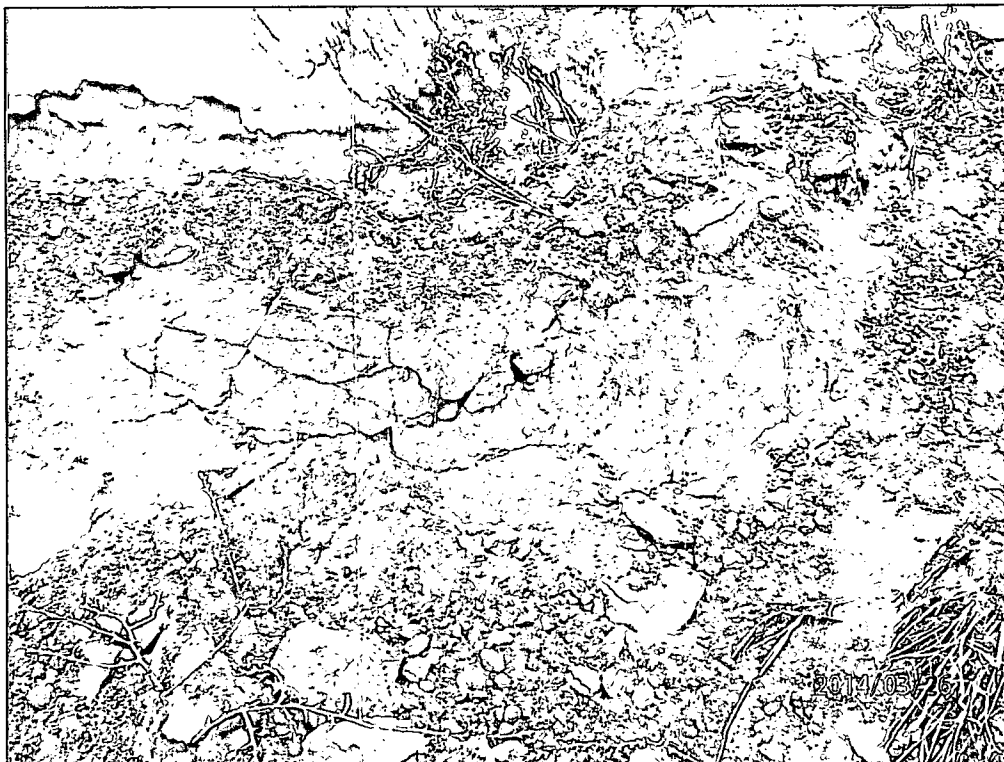
*Potentially impacted area prior to full excavation.*



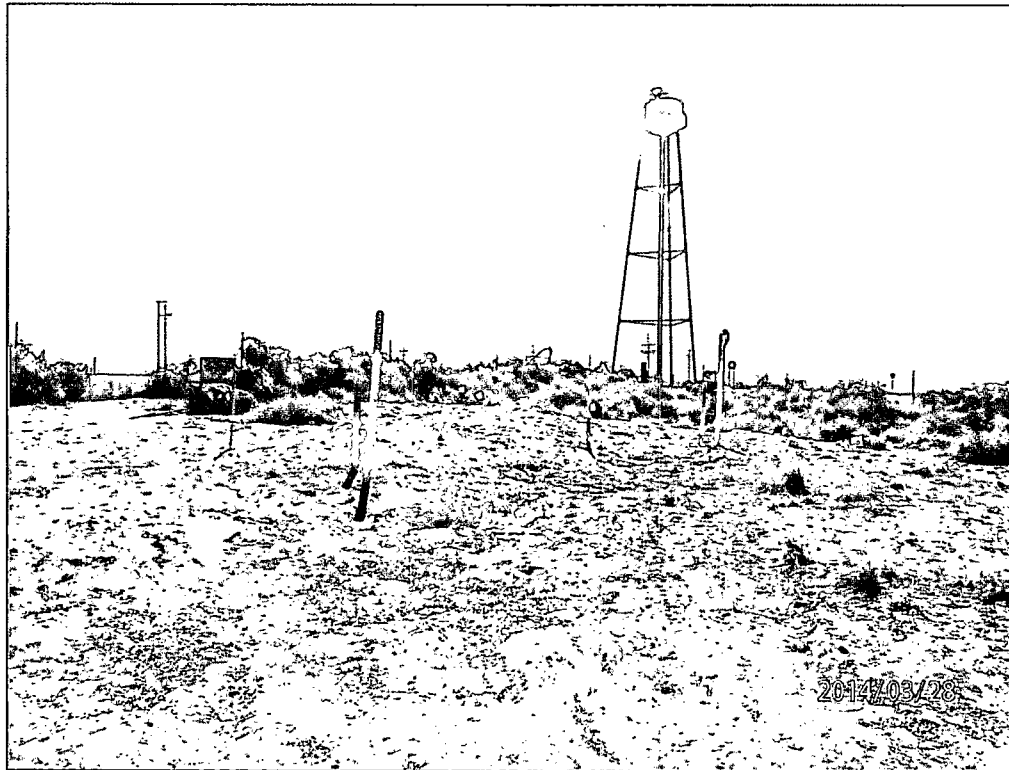
*No evidence of contaminated soil upon completion of ~40' of exposed pipe.*



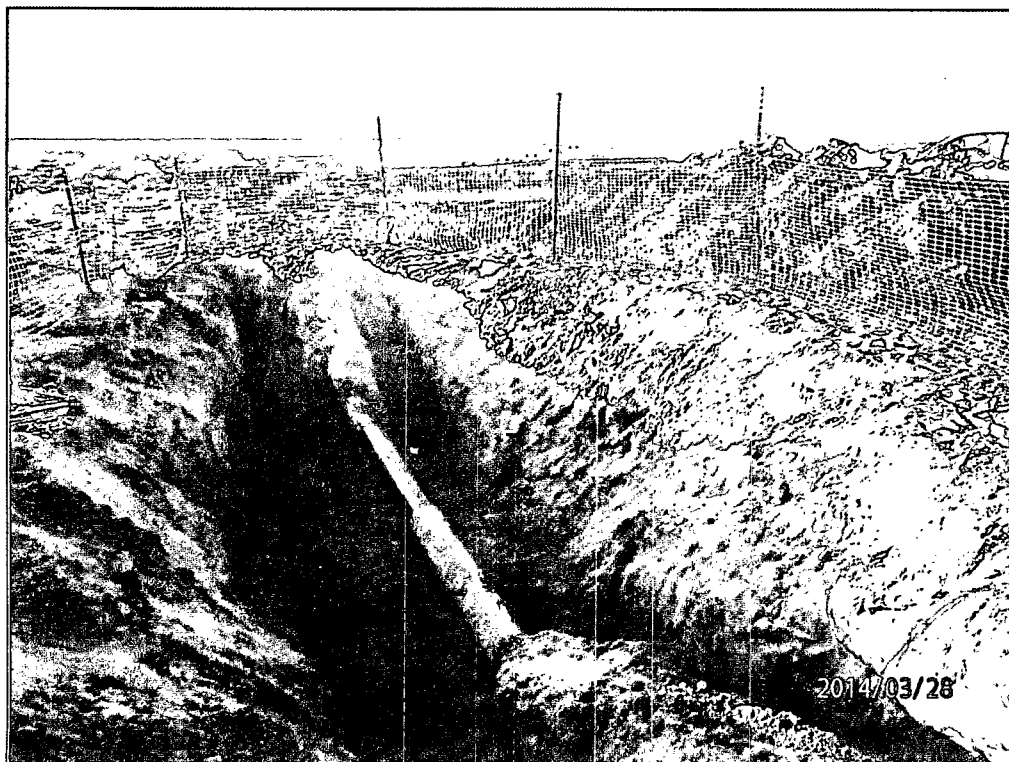
*Preparation for sample collection for Total Petroleum Hydrocarbon (TPH) field screens.*



*Moderately stained portion of the initial excavation, likely as a result of the adjacent line leak.*



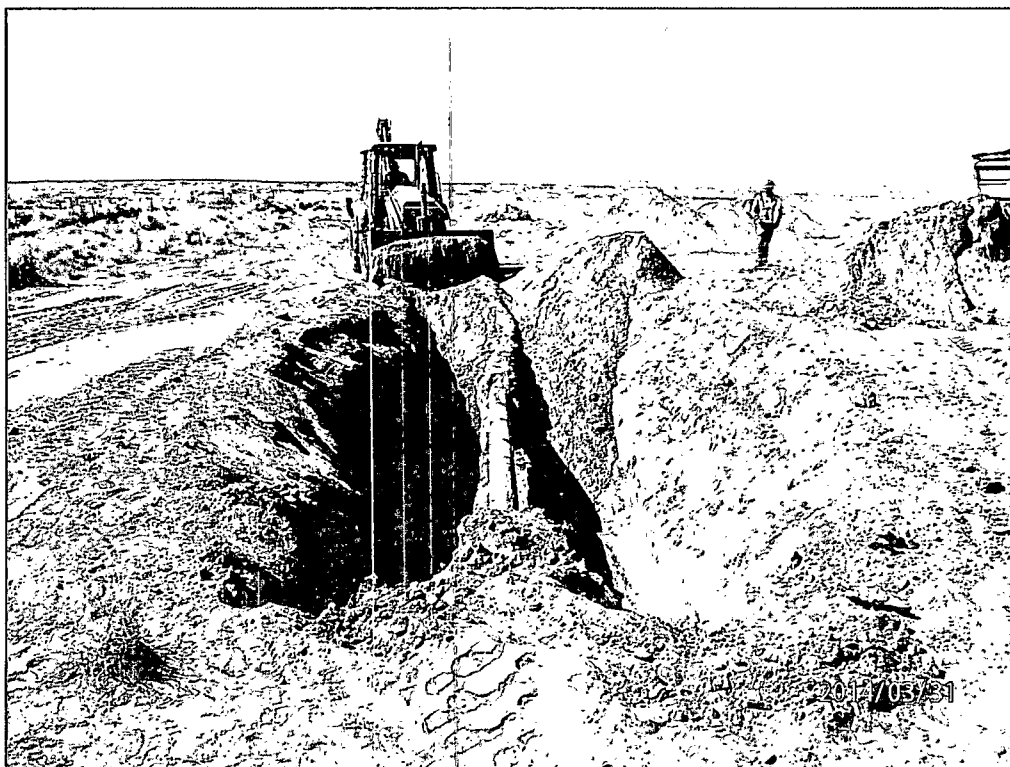
*Photo looking southeast – potentially impacted area prior to excavation.*



*The excavation exposed ~20' of line with most of the contamination to the north side of the area.*



*Off-loading clean soil for backfill of the pit. Trucks are also transporting the contaminated soil off location to the Envirotech, Inc. Landfarm for disposal.*



*Beginning backfill operations after TPH results confirmed that all five composite samples were free of contamination by New Mexico OCD regulatory standards.*

## ***APPENDIX C***

### ***LABORATORY ANALYSIS SUMMARY***

*Hall Environmental Analysis Laboratories Analytical Results*

DATE	TIME	SAMPLE IDENTIFICATION	METHOD 8015 GRO	METHOD 8015 DRO	METHOD 8021 BENZENE	METHOD 8021 BTEX
3/26/2014	11:05	Spoil Pile Composite (1st excavation)	<9.9	<4.8	<0.048	<0.095
3/28/2014	15:30	South Wall Composite	<10	<4.6	<0.046	<0.092
3/28/2014	15:45	West Wall Composite	<10	<5.0	<0.050	<0.10
3/28/2014	15:40	East Wall Composite	<10	<5.0	<0.050	<0.10
3/31/2014	13:35	Footprint Composite	<10	<4.8	<0.048	<0.095
3/31/2014	10:50	North Wall Composite	<10	<4.7	<0.047	<0.095

## ***APPENDIX D***

### ***BILL(S) OF LADING / SHIPPING MANIFESTS***



PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

## Bill of Lading

MANIFEST # 46406

DATE 3/31/14 JOB # 97057-0630

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise 3D Loop	LFII-5	cont. Soil / waste	D-22	10	-	Ritchey	L71	955	<i>[Signature]</i>
2	"	"	"	D-22	10	-	Ritchey	L71	1110	<i>[Signature]</i>
3	"	"	"	D-22	10	-	Ritchey	L71	1205	<i>[Signature]</i>
4	"	"	"	D-22	10	-	Ritchey	L71	130	<i>[Signature]</i>
5	"	"	"	D-22	10	-	Ritchey	L71	140	<i>[Signature]</i>
6	"	"	"	D-22	10	-	"	"	15:25	<i>[Signature]</i>
7	"	"	"	D-22	10	-	"	"	16:25	<i>[Signature]</i>
					70					
RESULTS:		LANDFARM EMPLOYEE:		NOTES:						
286	CHLORIDE TEST	2	<i>Patrick Bateman</i>							
	PAINT FILTER TEST	2	Certification of above receipt & placement							

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Ritchey NAME Elmer T. Ritchey SIGNATURE *[Signature]*

COMPANY CONTACT Elmer T. Ritchey PHONE 793 4424 DATE March 31 14

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

sen 3201 reproduction 578-126

Bills of Lading for contaminated soil hauled to Envirotech Landfarm



Lateral 3D Loop Release





MANIFEST # 46410

DATE 3/31/14 JOB # 97057-0630

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Ethiopia P.M.S. UBA, INC. NAME Melvin Herbert SIGNATURE Melvin Herbert

COMPANY CONTACT Nick Sanchez PHONE (585) 333-2005 DATE 03/31/2014

*Signatures required prior to distribution of the legal document.*

**White - Company Records, Yellow - Billing, Pink - Customer**

MAN MAN REPRODUCTION 578-128



# Bill of Lading

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

MANIFEST # 46405

DATE 3/31/14 JOB # 97057-0630

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	<del>Envirotech</del>	Enterprise 32 Loop	Clean Fill	—	10	—	Ritchey	L71	900	<i>[Signature]</i>
2	"	"	Clean Fill	—	10	—	Ritchey	L71	955	<i>[Signature]</i>
3	"	"	Clean Fill	—	10	—	Ritchey	L71	1110	<i>[Signature]</i>
4	"	"	Clean Fill	—	10	—	Ritchey	L71	1205	<i>[Signature]</i>
5	"	"	Clean Fill	—	10	—	Ritchey	L71	1310	<i>[Signature]</i>
6	"	"	Clean Fill	—	10	—	Ritchey	L71	1420	<i>[Signature]</i>
7	"	"	"	—	10	—	"	L71	1525	<i>[Signature]</i>
8	"	"	"	—	10	—	"	L71	1625	<i>[Signature]</i>
						80				
RESULTS:						NOTES:				
CHLORIDE TEST			LANDFARM EMPLOYEE: <i>Patrick Bateman</i> BGW							
PAINT FILTER TEST			Certification of above receipt & placement							

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Ritchey NAME Frank Ritchey SIGNATURE *[Signature]*  
COMPANY CONTACT Frank Ritchey PHONE 793 4424 DATE March 31 14  
Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

can just reproduction 578 128

Bills of Lading for clean soil brought in from Envirotech Landfarm for excavation backfill



Lateral 3D Loop Release



# Bill of Lading

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

MANIFEST # 46408

DATE 3/31/14 JOB # 97057-0630

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY				
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE	
1	Envirotech	Enterprise 3D Loop	Clean Fill	—	10	—	EMS	310-304	1245	Michael Herbert	
2	"	"	"	—	10	—	EMS	310-304	1345	Michael Herbert	
3	"	"	"	—	10	—	EMS	310-304	1450	Michael Herbert	
4	"	"	"	—	10	—	"	310-304	1545	Michael Herbert	
5	VOID THIS LINE						—	—	310-304	1640	
					40						
RESULTS:											
CHLORIDE TEST			LANDFARM EMPLOYEE: Patrick L. Starnes			NOTES:					
PAINT FILTER TEST			Certification of above receipt & placement								

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Enterprise / E. M. SUBA, INC. NAME Michael Herbert SIGNATURE Michael Herbert  
COMPANY CONTACT Mike San Diego PHONE (505) 733-2005 DATE 03/31/2014

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer

can just reproduction 579-128



Lateral 3D Loop Release

## ***APPENDIX E***

### ***Hall Environmental Analysis Laboratory Analytical Report***

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1403B18

Date Reported: 4/2/2014

CLIENT: HRL Compliance Solutions

Client Sample ID: Spoil Pile Composite

Project: Lateral 3D Loop

Collection Date: 3/26/2014 11:05:00 AM

Lab ID: 1403B18-001

Matrix: SOIL

Received Date: 3/27/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/31/2014 11:15:18 PM	12395
Surr: DNOP	69.0	66-131		%REC	1	3/31/2014 11:15:18 PM	12395
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/28/2014 2:51:56 PM	12407
Surr: BFB	91.7	74.5-129		%REC	1	3/28/2014 2:51:56 PM	12407
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	3/28/2014 2:51:56 PM	12407
Toluene	ND	0.048		mg/Kg	1	3/28/2014 2:51:56 PM	12407
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2014 2:51:56 PM	12407
Xylenes, Total	ND	0.095		mg/Kg	1	3/28/2014 2:51:56 PM	12407
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	3/28/2014 2:51:56 PM	12407

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#: 1403B18

02-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 3D Loop

Sample ID	MB-12407	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12407	RunNo:	17665					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	508847	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.9	74.5	129			

Sample ID	LCS-12407	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12407	RunNo:	17665					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	508848	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	71.7	134			
Surr: BFB	970		1000		96.8	74.5	129			

## Qualifiers:

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1403B18

02-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 3D Loop

Sample ID	MB-12395	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12395	RunNo:	17640					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	507988	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.1		10.00		91.0	66	131			

Sample ID	LCS-12395	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12395	RunNo:	17640					
Prep Date:	3/27/2014	Analysis Date:	3/28/2014	SeqNo:	508085	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.6	60.8	145			
Surr: DNOP	4.4		5.000		87.2	66	131			

Sample ID	MB-12428	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12428	RunNo:	17675					
Prep Date:	3/28/2014	Analysis Date:	3/31/2014	SeqNo:	508991	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.1	66	131			

Sample ID	LCS-12428	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12428	RunNo:	17675					
Prep Date:	3/28/2014	Analysis Date:	3/31/2014	SeqNo:	509000	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.7	66	131			

Sample ID	MB-12452	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	12452	RunNo:	17675					
Prep Date:	3/31/2014	Analysis Date:	3/31/2014	SeqNo:	509001	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		84.0	66	131			

Sample ID	LCS-12452	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	12452	RunNo:	17675					
Prep Date:	3/31/2014	Analysis Date:	3/31/2014	SeqNo:	509002	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.3	66	131			

### Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403B18

02-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 3D Loop

Sample ID	MB-12407		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 12407		RunNo: 17665					
Prep Date:	3/27/2014		Analysis Date: 3/28/2014		SeqNo: 508883		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-12407		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 12407		RunNo: 17665					
Prep Date:	3/27/2014		Analysis Date: 3/28/2014		SeqNo: 508884		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	99.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	1403B18-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	Spill Pile Composi		Batch ID: 12407		RunNo: 17665					
Prep Date:	3/27/2014		Analysis Date: 3/28/2014		SeqNo: 508892		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9524	0	113	67.4	135			
Toluene	1.0	0.048	0.9524	0.01263	105	72.6	135			
Ethylbenzene	1.0	0.048	0.9524	0.009743	106	69.4	143			
Xylenes, Total	3.0	0.095	2.857	0.02897	105	70.8	144			
Surr: 4-Bromofluorobenzene	1.0		0.9524		108	80	120			

Sample ID	1403B18-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	Spill Pile Composi		Batch ID:	12407		RunNo:	17665				
Prep Date:	3/27/2014		Analysis Date:	3/28/2014		SeqNo:	508893		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.048	0.9524	0	112	67.4	135	0.602	20		
Toluene	1.0	0.048	0.9524	0.01263	104	72.6	135	0.903	20		
Ethylbenzene	1.0	0.048	0.9524	0.009743	107	69.4	143	1.15	20		
Xylenes, Total	3.0	0.095	2.857	0.02897	106	70.8	144	0.0679	20		
Surr: 4-Bromofluorobenzene	1.0		0.9524		108	80	120	0	0		

## 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 **1404112**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** South Wall Composite**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/28/2014 3:30:00 PM**Lab ID:** 1404112-003**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/4/2014 3:41:30 PM	12506
Surr: DNOP	105	66-131		%REC	1	4/4/2014 3:41:30 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/3/2014 3:28:01 PM	12511
Surr: BFB	87.6	74.5-129		%REC	1	4/3/2014 3:28:01 PM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	4/3/2014 3:28:01 PM	12511
Toluene	ND	0.046		mg/Kg	1	4/3/2014 3:28:01 PM	12511
Ethylbenzene	ND	0.046		mg/Kg	1	4/3/2014 3:28:01 PM	12511
Xylenes, Total	ND	0.092		mg/Kg	1	4/3/2014 3:28:01 PM	12511
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/3/2014 3:28:01 PM	12511

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 1404112

Date Reported: 4/9/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** West Wall Composite**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/28/2014 3:45:00 PM**Lab ID:** 1404112-004**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 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	4/4/2014 4:03:25 PM	12506
Surr: DNOP	73.0	66-131		%REC	1	4/4/2014 4:03:25 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/3/2014 6:48:31 PM	12511
Surr: BFB	86.3	74.5-129		%REC	1	4/3/2014 6:48:31 PM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	4/3/2014 6:48:31 PM	12511
Toluene	ND	0.050		mg/Kg	1	4/3/2014 6:48:31 PM	12511
Ethylbenzene	ND	0.050		mg/Kg	1	4/3/2014 6:48:31 PM	12511
Xylenes, Total	ND	0.10		mg/Kg	1	4/3/2014 6:48:31 PM	12511
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	4/3/2014 6:48:31 PM	12511

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 **1404112**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** East Wall Composite**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/28/2014 3:40:00 PM**Lab ID:** 1404112-005**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/4/2014 4:25:35 PM	12506
Surr: DNOP	86.0	66-131		%REC	1	4/4/2014 4:25:35 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/3/2014 7:17:08 PM	12511
Surr: BFB	87.2	74.5-129		%REC	1	4/3/2014 7:17:08 PM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	4/3/2014 7:17:08 PM	12511
Toluene	ND	0.050		mg/Kg	1	4/3/2014 7:17:08 PM	12511
Ethylbenzene	ND	0.050		mg/Kg	1	4/3/2014 7:17:08 PM	12511
Xylenes, Total	ND	0.10		mg/Kg	1	4/3/2014 7:17:08 PM	12511
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/3/2014 7:17:08 PM	12511

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 1404112

Date Reported: 4/9/2014

CLIENT: HRL Compliance Solutions

Client Sample ID: Footprint Composite

Project: Lateral 30 Loop/Trunk 30

Collection Date: 3/31/2014 1:35:00 PM

Lab ID: 1404112-006

Matrix: SOIL

Received Date: 4/2/2014 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/4/2014 4:47:29 PM	12506
Surr: DNOP	88.3	66-131		%REC	1	4/4/2014 4:47:29 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/3/2014 7:45:41 PM	12511
Surr: BFB	87.2	74.5-129		%REC	1	4/3/2014 7:45:41 PM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	4/3/2014 7:45:41 PM	12511
Toluene	ND	0.048		mg/Kg	1	4/3/2014 7:45:41 PM	12511
Ethylbenzene	ND	0.048		mg/Kg	1	4/3/2014 7:45:41 PM	12511
Xylenes, Total	ND	0.095		mg/Kg	1	4/3/2014 7:45:41 PM	12511
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/3/2014 7:45:41 PM	12511

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 **1404112**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** North Wall Composite**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/31/2014 10:50:00 AM**Lab ID:** 1404112-007**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 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	4/4/2014 5:09:37 PM	12506
Surr: DNOP	87.0	66-131		%REC	1	4/4/2014 5:09:37 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/3/2014 8:14:14 PM	12511
Surr: BFB	87.9	74.5-129		%REC	1	4/3/2014 8:14:14 PM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	4/3/2014 8:14:14 PM	12511
Toluene	ND	0.047		mg/Kg	1	4/3/2014 8:14:14 PM	12511
Ethylbenzene	ND	0.047		mg/Kg	1	4/3/2014 8:14:14 PM	12511
Xylenes, Total	ND	0.095		mg/Kg	1	4/3/2014 8:14:14 PM	12511
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/3/2014 8:14:14 PM	12511

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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	LCS-12506		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12506		RunNo: 17793					
Prep Date:	4/2/2014		Analysis Date: 4/4/2014		SeqNo: 512922		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	60.8	145			
Surr: DNOP	4.0		5.000		79.9	66	131			

Sample ID	MB-12506		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 12506		RunNo: 17797					
Prep Date:	4/2/2014		Analysis Date: 4/4/2014		SeqNo: 513040		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	12		10.00		121	66	131			

Sample ID	MB-12545		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	12545		RunNo:	17793				
Prep Date:	4/4/2014		Analysis Date:	4/4/2014		SeqNo:	513063		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	7.4		10.00		74.3	66	131				

Sample ID	LCS-12545		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 12545		RunNo: 17793					
Prep Date:	4/4/2014		Analysis Date: 4/4/2014		SeqNo: 513064		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.000		75.3	66	131			

Sample ID	1404112-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SS01		Batch ID:	12506		RunNo:	17793				
Prep Date:	4/2/2014		Analysis Date:	4/4/2014		SeqNo:	513213		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	49	10	50.20	4.138	90.1	47.4	148				
Surr: DNOP	4.0		5.020		80.3	66	131				

Sample ID	1404112-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SS01		Batch ID:	12506		RunNo:	17793				
Prep Date:	4/2/2014		Analysis Date:	4/4/2014		SeqNo:	513214		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	54	10	50.15	4.138	99.1	47.4	148	8.62	22.7		
Surr: DNOP	4.0		5.015		79.2	66	131	0	0		

### 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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12511	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512609	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.8	74.5	129			

Sample ID	LCS-12511	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512610	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	71.7	134			
Surr: BFB	970		1000		97.0	74.5	129			

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

Sample ID	LCS-12530	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513589	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12511		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 12511		RunNo: 17777					
Prep Date:	4/2/2014		Analysis Date: 4/3/2014		SeqNo: 512663		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		100	80	120			

Sample ID	LCS-12511		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 12511		RunNo: 17777					
Prep Date:	4/2/2014		Analysis Date: 4/3/2014		SeqNo: 512664		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	1404112-001AMS			SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SS01			Batch ID:	12511		RunNo:	17777			
Prep Date:	4/2/2014			Analysis Date:	4/3/2014		SeqNo:	512668		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.99	0.047	0.9302	0	106	67.4	135				
Toluene	0.97	0.047	0.9302	0.007642	104	72.6	135				
Ethylbenzene	1.0	0.047	0.9302	0	108	69.4	143				
Xylenes, Total	3.0	0.093	2.791	0.01121	107	70.8	144				
Surr: 4-Bromofluorobenzene	1.0		0.9302		108	80	120				

Sample ID	1404112-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SS01		Batch ID: 12511		RunNo: 17777					
Prep Date:	4/2/2014		Analysis Date: 4/3/2014		SeqNo: 512669		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.046	0.9294	0	108	67.4	135	1.62	20	
Toluene	0.97	0.046	0.9294	0.007642	103	72.6	135	0.329	20	
Ethylbenzene	0.99	0.046	0.9294	0	106	69.4	143	2.16	20	
Xylenes, Total	3.0	0.093	2.788	0.01121	106	70.8	144	1.46	20	
Surr: 4-Bromofluorobenzene	0.97		0.9294		104	80	120	0	0	

### Qualifiers:

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12530	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513622	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-12530	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513623	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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

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: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Trunk 3D Pipeline	Facility Type: Natural Gas Gathering Line

Surface Owner: NAPI/Navajo Tribal Land	Mineral Owner: BLM	API No.
--	--------------------	---------

**LOCATION OF RELEASE**

Unit Letter B	Section 7	Township 27N	Range 11W	Feet from the 727	North South Line	Feet from the 2451	East West Line	County San Juan
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Latitude 36.595184

Longitude -108.044628

JUN 20 2014

**NATURE OF RELEASE**

Type of Release: natural gas liquids	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Accidental discharge	Date and Hour of Occurrence: 3/25/2014 @ 6:15 p.m.	Date and Hour of Discovery: 3/25/2014 @ 6:30 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	NMOCD -Jonathan Kelly; NAPI Safety - Eric Trevizo, NNEPA -Steve Austin	
By Whom? Thomas Long	3/25/14 @ 7:00 p.m. - Jonathan Kelly; NAPI Safety - Eric Trevizo, NNEPA -Steve Austin	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* During maintenance activities for blowing down the Lateral 3D Loop pipeline, a release occurred on the Trunk 3D. Natural gas liquids (condensate and oil) were released from the valve on the Trunk 3D. An area of approximately 20 feet wide by 75 feet long was affected including a paved county road. The remediation activities completed on March 28, 2014.

Describe Area Affected and Cleanup Action Taken.\* The remediation activities were completed on March 28, 2014. County Road 7010 was steamed cleaned with a simple green and water mixture. Approximately 36 cubic yards of hydrocarbon impacted soil were excavated and transported to an NMOCD approved land farm facility. A third party environmental contractor corrective action report is included with this "final" c-141.

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>Jon Fields</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 9/5/14	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6-17-2014	Phone: (713)381-6684	

\* Attach Additional Sheets If Necessary

#NCS 1424850 174

27

**Closure Report**  
**Trunk 3D Release**

**OIL CONS. DIV DIST. 3**

**JUN 20 2014**

Prepared for:



**Enterprise Products™**

**Enterprise Products**  
1100 Louisiana Street  
Houston, Texas, 77002

Prepared by:  
**HRL Compliance Solutions, Inc.**  
2385 F ½ Road  
Grand Junction, CO 81505  
Phone: 970-243-3271

Prepared: April 2014

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<b>Appendix D:</b> Bills of Lading	
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## EXECUTIVE SUMMARY

On March 18<sup>th</sup>, 2014, Enterprise Products responded to a one-call issued for the Gas Company of New Mexico in regards to a potential gas release. The Trunk 3D release, originating from a valve set ~2.8 miles from the Lateral 3D Loop release, occurred on March 25<sup>th</sup>, 2014. Enterprise contracted HRL Compliance Solutions, Inc., to assist in the remediation of the release.

HCSI personnel responded to the release location the morning of March 28<sup>th</sup>, 2014 to conduct the field investigation and monitor excavation activity. Upon delineating the potentially impacted area, pre-excavation field screen readings indicated that the area south of county road 7010 exceeded New Mexico Oil Conservation Division (OCD) and Navajo Nation regulatory standards. Based on these findings, appropriate corrective actions would be necessary.

Excavation operations removed approximately thirty-six (36) cubic yards of contaminated top soil to a depth greater than six (6) inches and transported the material off location. Post-excavation PetroFLAG™ (TPH) field screen readings fell within acceptable parameters of the NMOCD remediation action levels. Analytical results of the composite samples collected from the excavation were 'Non Detect' at the reporting level, and release site was closed out with no further need for corrective action.

## INTRODUCTION

The purpose of this closure report for the Trunk 3D release is to provide detailed information, field and analytical results, and appropriate documentation necessary to establish a comprehensive investigation in accordance with all appropriate county, state and federal rules and regulations.

The legal description of the release point source is:

Latitude: 36.595184° N Longitude: -108.044628° W  
Unit B (NWNE), Section 7, Township 27N, Range 11W  
628' FNL, 2,473 FEL  
San Juan County, New Mexico

Remedial activities were conducted and concluded on March 28<sup>th</sup>, 2014. Information in this report includes but is not limited to: soil field screening results, laboratory analytical results, and unsaturated contaminated soil treatment and disposal.

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## SITE RANKING & LAND JURISDICTION

The release site is located on land of the Navajo Agricultural Products Industry (NAPI). Under these circumstances, the New Mexico Oil Conservation Division maintains jurisdiction in cooperation with the Navajo Nation regulations. Since the Lateral 3D Loop is bounded by the Navajo Nation regulatory standards, the site is ranked at a more stringent level of remediation, exceeding an NMOCD ranking score of 20, requiring the site contaminants to be cleaned to the following concentration levels:

Benzene: 10 ppm  
BTEX: 50 ppm  
TPH: 100 ppm

## SUMMARY OF FIELD ACTIVITIES

HCSI personnel arrived on location at approximately 9:00 AM on March 28<sup>th</sup>, 2014 to conduct an initial investigation and monitor remediation of the Trunk 3D release associated with a riser on a natural gas valve set. The equipment released an unknown quantity of natural gas liquids as a mist in the general vicinity of the valve set and the adjacent County Road 7010. The material released onto the pavement was immediately addressed on March 26<sup>th</sup>, 2014, using a power washer to move the contaminants off to the sides of the road. This activity potentially increased the concentrations in the adjacent soil.

Upon arrival to the location, HCSI mapped the perimeter of the potentially impacted areas using a handheld Trimble GPS unit. No background sampling was required at the discretion of Enterprise Products. Once the individual perimeters of the north and south sides of the road were established, two grab samples were collected (four total) at a depth of 6" and 12" from both the north and south sides of the road and field screened for headspace VOC potential using Photo Ionization Detection (PID). Readings indicated that the VOC levels on the south side of the pavement exceeded acceptable regulatory standards at 300 ppm (0-6" sample), warranting excavation of the contaminated top soil (*see table 1*).

The impacted area was excavated to a depth of 6" from the pavement to the fencing around the valve setting perimeter. The total impacted area was approximately 1,863 ft<sup>2</sup>, and approximately 36 cubic yards of contaminated soil was excavated from the south side of the county road. The soil was then transported to the Envirotech, Inc. Landfarm for disposal. No new material was introduced to the excavation site.

Additional VOC field screens were conducted during the excavation process, all indicating that the contaminated material had been sufficiently removed (*see table 1*). Two 5-point composite soil samples from both north and south areas were collected, and Total Petroleum Hydrocarbon (TPH) confirmation field screens using PetroFLAG<sup>TM</sup> were conducted.

TPH field results indicated that the material removed was sufficient to comply with New Mexico OCD regulatory standards (*see table 1*). The decision was made to clear the site based on the low field screen readings and additional authorization from Enterprise.

## ANALYTICAL DATA MANAGEMENT

The two 5-point composite soil samples collected from the north and south sides of the road were placed in four 4-ounce jars and shipped on April 1<sup>st</sup>, 2014 to Hall Environmental Analysis Laboratories in Albuquerque, NM for analysis. Samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and Total Petroleum Hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO). All sample results came back ‘Non Detect’ at the reporting level (*Refer to Appendix C for analytical results*).

## CONCLUSION AND FURTHER RECOMMENDATIONS

Based on acceptable VOC/TPH field results, and acceptable laboratory analytical results, it is the professional opinion of HCSI that the site complies with New Mexico OCD requirements and no additional excavation will be required. Therefore the Trunk 3D Release project can be considered closed.

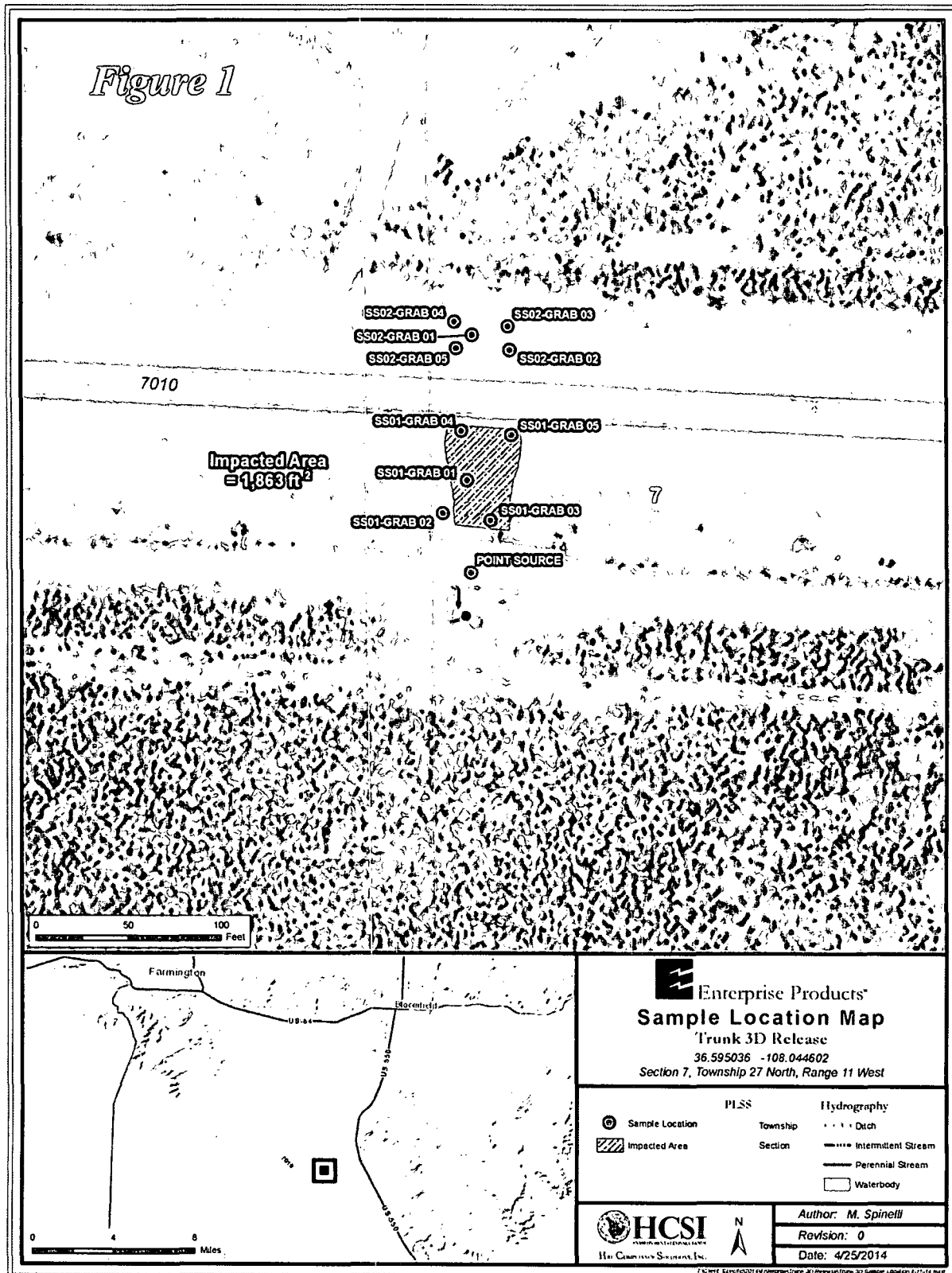
**Table 1: Field Screen Readings for Volatile Organic Compounds (VOC) & Total Petroleum Hydrocarbons (TPH)**

DATE	TIME	SAMPLE IDENTIFICATION	DEPTH (BGS)	PID (ppm)	PetroFLAG™ (ppm)	LAB SAMPLE SUBMITTED?
<b>FIELD SCREEN 1 - SOUTH SIDE OF COUNTY ROAD 7010</b>						
3/28/2014	9:06	Grab 01	0-6.0"	300.0	N/A	N
3/28/2014	9:06	Grab 02	6.0-12.0"	50.0	N/A	N
<b>FIELD SCREEN 2 - NORTH SIDE OF COUNTY ROAD 7010</b>						
3/28/2014	9:30	Grab 03	0-6.0"	0.3	N/A	N
3/28/2014	9:30	Grab 04	6.0-9.0"	0.5	N/A	N
<b>FIELD SCREEN 3 - 6" OF TOP SOIL EXCAVATED</b>						
3/28/2014	11:09	Grab 05	6.0-12.0"	3.2	N/A	N
<b>FIELD SCREEN 4 - CONFIRMATION FIELD SCREEN</b>						
3/28/2014	17:30	SS01 Composite (south side of CR 7010)	6.0-12.0"	1.3	9.0	Y
3/28/2014	17:20	SS02 Composite (north side of CR 7010)	6.0-12.0"	2.0	17.0	Y

---

## ***FIGURES***





## ***APPENDIX A***

## ***FIELD NOTES***

DATE 3/28/14 PROJECT # Trunk 3D WEATHER Breezy, Clear

- 0906 Release 50's  
 We collected two samples for our field screens (1) @ 0-6" Depth and (1) @ 12" depth on South Side of Hwy near Valve set.  
 0-6" depth = 300 ppm PID (Field Screen)  
 12" depth = 50 ppm PID
- Visual Staining apparent on South side of Hwy. Staining is ~~minimally~~ not visible on North Side.  
 Hwy pavement does show staining.  
 Spill area mapped @ 0930.
- Point of Origin - 6-8" Vertical pipe, released gas
- Field Screen 2 (North side of Hwy)  
 - 0-6" depth = 0.3 ppm PID  
 - 6-9" depth = 0.5 ppm PID
- Field Screen 3 (South Side of Hwy)  
 - 6" depth = 3.2 ppm PID  
 1109
- Field Screen 4 (South Side)  
 1300 6" depth = 4.7 ppm PID

# Confirmation Field Screen - Trunk 3D

1305 SS01 (South Side of Hwy)  
 ↳ This sample is comprised  
 of 5 individual grab samples  
 (middle, and each corner) +

1310 PID = 1.0 ppm  
 Petroly = 94 ppm

1720 PID = 1.3  
 Petroly = 9 ppm

1310 SS02 (North Side of Hwy)  
 ↳ This sample is also comprised  
 of 5 individual grab samples  
 (middle and each corner)

1310 PID = 2.0 ppm  
 Petroly = 490; will return w/ 1g Sample

1720 PID = 2.0 ppm  
 Petro = 17 ppm

DATE 3/28/14 PROJECT Log Adjunct WEATHER Breezy, Clear  
50's

- On Site @ 0800  
 ↳ No digging (commencing)  
 ↳ Apparently waiting on Leitch?

- Back on Site @ 1015  
 ↳ Still no digging  
 ↳ Performed initial field screen

Field Screen 1 = PED Down hole 20mm pr.  
 @ pt of Origin = Bagle 4400 ppm PED  
 (Collect w/ ring in petrole)  
 (EMS)

- Brent stated that we are still  
 not digging because Enterprise  
 is currently having an issue with  
 a downstream valve; therefore  
 blow down of the leaking line  
 cannot be completed.

- 1245  
 ↳ Crews digging down to expose  
 pipeline.

- 1346 Back on site. Crews still exposing  
 pipeline

DURABLE  
 DOCUMENT

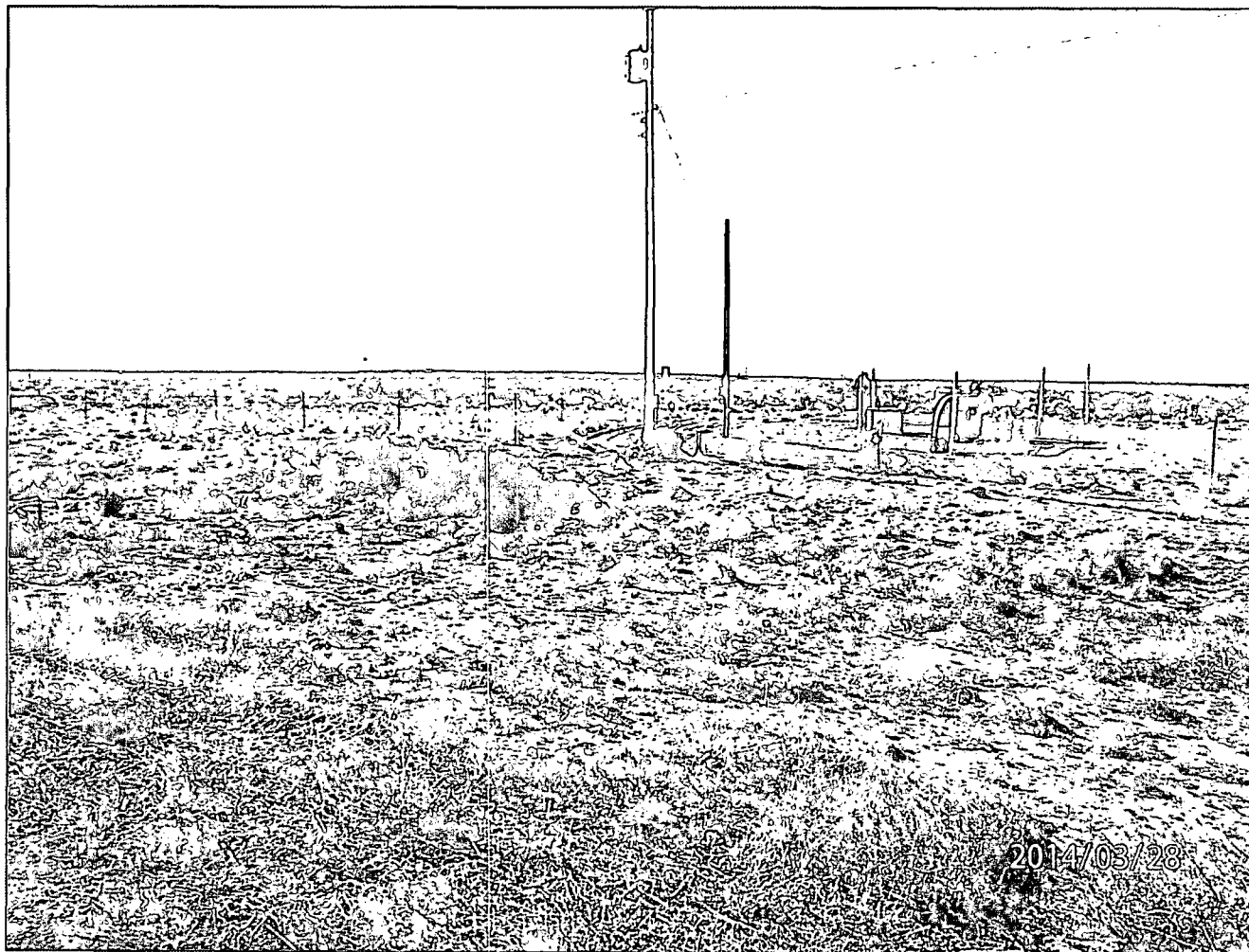
Confirmation Field Screen

ID	Time	(PPM)	(PPM)
		PID	Petroly
North	1535	50	159
West	1545	0.5	46
East	1540		4
South	1530		0
Footprint	1550	6.6	138
Spill Pic	1555		410

North 1810 15.0 2.0 1<sup>st</sup> North w/ Auger  
Footprint 1810 9.0 0.0 1<sup>st</sup> Deep w/ Auger

1850 Left Site @ 1850  
Kris G. and Mike L.

***APPENDIX B***  
***SITE PHOTOGRAPHY***



*Impacted area along south side of County Road 7010 (~1,863 ft<sup>2</sup>) prior to excavation.  
Valve setting in background is the point source for the release.*



*Area along north side of County Road 7010. This side was not excavated as acceptable TPH levels were recorded.*





*Impacted area along south side of County Road 7010 after excavation. Approximately 6" of top soil (~36 cubic yards) was removed from the release site.*

***APPENDIX C***  
***LABORATORY ANALYSIS SUMMARY***

*Hall Environmental Analysis Laboratories  
Confirmation Analytical Results*

DATE	TIME	SAMPLE IDENTIFICATION	METHOD 8015 GRO	METHOD 8015 DRO	METHOD 8021 BENZENE	METHOD 8021 BTEX
3/28/2014	17:30	SS01 Composite (south side of County Road)	<10.0	<4.6	<0.046	<0.093
3/28/2014	17:20	SS02 Composite (north side of County Road)	<10	<4.9	<0.049	<0.099

---

***APPENDIX D***

***BILL OF LADING /***  
***SHIPPING MANIFEST***



PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

## Bill of Lading

MANIFEST # 46388

DATE 3/28/14 JOB # 97057-0630

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Enterprise 30 loop	LFTI-5	Line Drop/Cont. Soil	D22	6	—	EMS	310-319	1012	Michael Herbert
2	"	"	"	D22	6	—	EMS	310-319	1105	Michael Herbert
3	"	"	"	D22	6	—	EMS	310-319	1148	Michael Herbert
4	"	"	"	D22	6	—	EMS	310-319	1250	Michael Herbert
5	"	"	"	D22	6	—	EMS	310-319	1305	Michael Herbert
6	"	"	"	D22	6	—	EMS	310-319	1350	Michael Herbert
					36					
RESULTS:		LANDFARM EMPLOYEE: Patrick P. [Signature]				NOTES:				
<286	CHLORIDE TEST	2								
	PAINT FILTER TEST	2	Certification of above receipt & placement							

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. E.H.S. USA, INC. NAME Michael Herbert SIGNATURE Michael Herbert

COMPANY CONTACT Mike Sanchez PHONE (505) 333-2003 DATE 03/28/2014

Signatures required prior to distribution of the legal document.

White - Company Records, Yellow - Billing, Pink - Customer



Trunk 3D Release

Bill of Lading for contaminated soil transported to Envirotech, Inc. Landfarm

## ***APPENDIX E***

### ***Hall Environmental Analysis Laboratory Analytical Report***

**Analytical Report**Lab Order **1404112**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** SS01**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/28/2014 5:30:00 PM**Lab ID:** 1404112-001**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 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	4/4/2014 2:13:03 PM	12506
Surr: DNOP	115	66-131		%REC	1	4/4/2014 2:13:03 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/3/2014 10:12:55 AM	12511
Surr: BFB	86.0	74.5-129		%REC	1	4/3/2014 10:12:55 AM	12511
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	4/3/2014 10:12:55 AM	12511
Toluene	ND	0.046		mg/Kg	1	4/3/2014 10:12:55 AM	12511
Ethylbenzene	ND	0.046		mg/Kg	1	4/3/2014 10:12:55 AM	12511
Xylenes, Total	ND	0.093		mg/Kg	1	4/3/2014 10:12:55 AM	12511
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/3/2014 10:12:55 AM	12511

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 **1404112**Date Reported: **4/9/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** HRL Compliance Solutions**Client Sample ID:** SS02**Project:** Lateral 30 Loop/Trunk 30**Collection Date:** 3/28/2014 5:20:00 PM**Lab ID:** 1404112-002**Matrix:** SOIL**Received Date:** 4/2/2014 9:45:00 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>					2	Analyst: <b>BCN</b>	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/4/2014 3:19:21 PM	12506
Surr: DNOP	92.5	66-131		%REC	1	4/4/2014 3:19:21 PM	12506
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/3/2014 10:41:34 AM	12511
Surr: BFB	85.4	74.5-129		%REC	1	4/3/2014 10:41:34 AM	12511
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>	
Benzene	ND	0.049		mg/Kg	1	4/3/2014 10:41:34 AM	12511
Toluene	ND	0.049		mg/Kg	1	4/3/2014 10:41:34 AM	12511
Ethylbenzene	ND	0.049		mg/Kg	1	4/3/2014 10:41:34 AM	12511
Xylenes, Total	ND	0.099		mg/Kg	1	4/3/2014 10:41:34 AM	12511
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	4/3/2014 10:41:34 AM	12511

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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	LCS-12506			SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics			
Client ID:	LCSS			Batch ID:	12506		RunNo:	17793			
Prep Date:	4/2/2014			Analysis Date:	4/4/2014		SeqNo:	512922		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	50	10	50.00	0	100	60.8	145				
Surr: DNOP	4.0		5.000		79.9	66	131				

Sample ID <b>MB-12506</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>		Batch ID: <b>12506</b>		RunNo: <b>17797</b>						
Prep Date: <b>4/2/2014</b>		Analysis Date: <b>4/4/2014</b>		SeqNo: <b>513040</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	12		10.00		121	66	131			

Sample ID	MB-12545		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	12545		RunNo:	17793				
Prep Date:	4/4/2014		Analysis Date:	4/4/2014		SeqNo:	513063		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	7.4		10.00		74.3	66	131				

Sample ID	LCS-12545		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	12545		RunNo:	17793				
Prep Date:	4/4/2014		Analysis Date:	4/4/2014		SeqNo:	513064		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	3.8		5.000		75.3	66	131				

Sample ID	1404112-001AMS			SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics			
Client ID:	SS01			Batch ID:	12506		RunNo:	17793			
Prep Date:	4/2/2014			Analysis Date:	4/4/2014		SeqNo:	513213		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	49	10	50.20	4.138	90.1	47.4	148				
Surr: DNOP	4.0		5.020		80.3	66	131				

Sample ID	1404112-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SS01		Batch ID:	12506		RunNo:	17793				
Prep Date:	4/2/2014		Analysis Date:	4/4/2014		SeqNo:	513214		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	54	10	50.15	4.138	99.1	47.4	148	8.62	22.7		
Surr: DNOP	4.0		5.015		79.2	66	131	0	0		

### 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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12511	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512609	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.8	74.5	129			

Sample ID	LCS-12511	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512610	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	71.7	134			
Surr: BFB	970		1000		97.0	74.5	129			

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

Sample ID	LCS-12530	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513589	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12511	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512663	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		100	80	120			

Sample ID	LCS-12511		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS		Batch ID:	12511		RunNo:	17777				
Prep Date:	4/2/2014		Analysis Date:	4/3/2014		SeqNo:	512664		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	1404112-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SS01	Batch ID:	12511	RunNo:	17777					
Prep Date:	4/2/2014	Analysis Date:	4/3/2014	SeqNo:	512668	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	0.99	0.047	0.9302	0	106	67.4	135			
Toluene	0.97	0.047	0.9302	0.007642	104	72.6	135			
Ethylbenzene	1.0	0.047	0.9302	0	108	69.4	143			
Xylenes, Total	3.0	0.093	2.791	0.01121	107	70.8	144			
Surr: 4-Bromofluorobenzene	1.0		0.9302		108	80	120			

Sample ID	1404112-001AMSD			SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SS01			Batch ID:	12511		RunNo:	17777				
Prep Date:	4/2/2014			Analysis Date:	4/3/2014		SeqNo:	512669			Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		

Benzene	1.0	0.046	0.9294	0	108	67.4	135	1.62	20	
Toluene	0.97	0.046	0.9294	0.007642	103	72.6	135	0.329	20	
Ethylbenzene	0.99	0.046	0.9294	0	106	69.4	143	2.16	20	
Xylenes, Total	3.0	0.093	2.788	0.01121	106	70.8	144	1.46	20	
Surr: 4-Bromofluorobenzene	0.97		0.9294		104	80	120	0	0	

### 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#: 1404112

09-Apr-14

Client: HRL Compliance Solutions

Project: Lateral 30 Loop/Trunk 30

Sample ID	MB-12530	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513622	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-12530	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	12530	RunNo:	17816					
Prep Date:	4/3/2014	Analysis Date:	4/4/2014	SeqNo:	513623	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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